MAR 22 1921

THE BUILDER

A JOURNAL FOR THE ARCHITECT & CONSTRUCTOR

VOLUME CXX. No. 4074. Seventy-ninth Year.

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VOL. CXX.—No. 4074. MARCH 4, 1921.

THE PUBLIC AND ARCHITECTURE.

SOME interesting points affecting architects were brought into prominence in Mr. Gordon Selfridge's address on "Architecture and Commerce" to members of the Architectural Association, a report of which appeared in our last issue; and though they have received a good deal of consideration in recent years, it may not be unprofitable to take this opportunity to refer to them again. The absence of architectural quality in most of the commercial buildings of the world is freely acknowledged, but there is a growing opinion that, whereas in France and America a marked advance has recently taken place in the quality of these buildings, in our own country there is much less to suggest that either architects or their clients take a pride in anything but the utilitarian character of commercial buildings. So far as America is concerned, we have lately heard a good deal which suggests that commercial buildings in the States are on the whole distinctly superior to our own, and that the American citizens, and especially the American architects, are not only more interested in the standard of architectural work but that they are better trained to appreciate or produce it. Though not forgetting some recent commercial buildings erected in London and elsewhere which are creditable to their architects and owners, we are confronted with the opinion that in America there is a wider public appreciation of good architecture, and on the whole, if not a more competent body of architects to produce it, yet a body more intelligently united for the purpose of producing it. The words of Mr. Robert Atkinson, Director of Education at the Architectural Association Schools, who recently reported on architecture in the States, following a visit of some duration, are very much to the point. In referring to the vitality of architecture in the States he stated that the standard imposed is an uncommonly high one, and that the power to impose it so widely at a certain stage of national development is itself a proof of the vitality of the art. "Everywhere in America," he says, "one is struck by the interest taken by the public in architecture, and, more important still, in good architecture. The profession recognises its responsibility to the public, and in spite of criticism it is true to say that architects are on the whole well educated."

The conclusions of so capable and observant an architect are confirmed by others, and are implied in what Mr. Selfridge suggested rather than said, and they apply, of course, to architecture as a whole, and not only to commercial architecture. But commercial buildings are of special importance, because by them we judge largely of the architecture of a town, and because one or two badly-designed buildings will spoil an otherwise fine street or block; but in spite of this we allow our towns to grow up in a haphazard sort of way and most of our commercial buildings to be produced with little more thought than is necessary to make them conform to Building Acts. Utilitarianism is stamped all over them, but little or nothing of beauty—not infrequently their very utility is jeopardised in unimaginative attempts to achieve it. Here and there we see a serious attempt made to provide a suitable setting for the display of merchandise, but how many English firms, we wonder, could claim similar reasons for erecting a business house as were mentioned by a representative of a large American store in the discussion on Mr. Selfridge's address? The reasons, he said, why his firm decided to erect the fine building they have at present were a desire to beat their competitors; a wish to display their goods in the best possible surroundings; to provide pleasant surroundings for their customers and employees; the advertising value of a building which would be talked about; and, lastly, the desire of the proprietors to have a monument to themselves equal to the ideals they had in commerce.

It cannot be suggested that these reasons are not deliberate, and that on the whole they are not enlightened. Without doubt they represent settled conviction, and an educated opinion in advance of what we find here, and it is a subject of interest to attempt to discover the reason for this. Why does the American commercial man take this enlightened interest in the architectural quality of his building? The Briton is not afraid to spend large sums of money on other things; why are parsimony and indifference to beauty so much in evidence when he builds? Nor can it truly be said that the British public are unwilling to learn, not only about architecture, but about anything which interests other people; and what has been accomplished in America can surely be achieved here. If the architects of America have formed for themselves and their associations "principles and policies which have been absolutely accepted by the public," why should we not do the same? We commend to the consideration of our architectural societies Mr. Selfridge's answer:—"They have only brought about that result by great, broad ideas, by pulling down and trampling under foot little petty jealousies and bickerings among themselves, and they have proved to a critical public the excellence of their general judgment on all matters pertaining to their profession. No great work is undertaken in any city in America related in any way to architecture in which the judgment and final decision of the Association of Architects is not sought and almost always followed. The architect is not necessarily the financier, but in all that which touches the fine art of his profession the public recognises that he knows better than they. It is a matter of great congratulation to the American cities that they have this body of splendidly-informed, world-travelled experts, in whose hands can be left safely the decisions on matters pertaining to architecture." These observations from an intelligent observer appear to go to the root of the matter, and would, we believe, be endorsed by the best architects in the country. Let architects present a united front to the public and prove to them the excellence of their judgment on matters pertaining to their profession, and we should hear less of Government neglect of the profession and the public indifference to architecture, with the result of an almost certain improvement in the architecture of our shops and public buildings.

Mr. Selfridge's ideas on the education of the public in these matters, as well as the duty of the architect in his relations to the client as the one primarily responsible for good or bad buildings, are not so convincing. The architect, we are told, is in a similar position to the doctor who is called in to attend a patient. "The architect," he said, "should really be the physician who prescribes the proper nourishment for the client's mind, and should be sufficiently positive to insist upon the treatment rather than be willing to be a party to doing the poor thing, simply because a client is a little arbitrary and perhaps entirely unintelligent on the subject. . . . A doctor may prescribe a treatment—perhaps a 'blue mess'—to which the patient objects, but a doctor is not going to treat that case in a way to suit an arbitrary, self-opinionated sort of client. . . . I think the architects would raise the quality of their profession by declining to accept jobs which do not come up to their ideals, and I think they should inspire that general spirit throughout architecture. Although you might find a backslider who would do anything for the sake of a commission, I think he would lose more in the loss of the respect of his fellow-men than he would gain."

Admirable as this advice is, the cases are not parallel. The doctor is rarely dictated to, because of the medical ignorance of most people and because of the responsibility, made very onerous in extreme cases, of rejecting medical advice. Architects are not in the same position, nor does it seem likely that they ever will be.

However little the public know about what is good for them in building, it would be far more difficult to convince them that they do not know much more of what they want and how to obtain it than they do of medicine. And this belief is to be encouraged, for is it not the beginning of understanding? And is not the capable architect helped rather than hindered in his work if he has sufficient tact to make use of his client's belief that he knows what he wants?

NOTES.

The Metropolitan Water Board Regulations.

WE have received from the principal manufacturers of sanitary appliances in London a copy of the correspondence which has passed between their solicitors and the Metropolitan Water Board, in connection with the new instructions which the Board is, we understand, enforcing. We are informed that the Inspectors are stating that unless the fittings are made in accordance with a certain specification and afterwards stamped and approved by the Metropolitan Water Board at its Testing Office in Clerkenwell, or unless the fittings are made in accordance with the Standard Specification of the British Waterworks Association (which is not yet published) and afterwards stamped and approved by the Metropolitan Water Board at its Testing Office, the fittings "will not be approved," and that they are "rejected" and "must not be fixed." Generally, and in effect, we understand the Inspectors are saying, or are giving the builders and plumbers definitely to understand, that a supply of water will be withheld unless the fittings are thus made and stamped.

Higher London Buildings.

THE recent discussion on higher buildings for London has been followed by a deputation from the Building Act Committee of the Royal Institute of British Architects suggesting to the London County Council that in the case of new buildings opposite open spaces and the riverside a height of 150 ft. should be permitted, exclusive of two stories in the roof, subject to such buildings being of fire-resisting material and other precautions against fire being taken. The Building Acts Committee of the London County Council gave a sympathetic hearing to the proposals, but stated that they must consult the Fire Brigade Committee, with whom the delegates of the Committee of the Royal Institute of British Architects were recommended to seek a conference.

High Wages and Output.

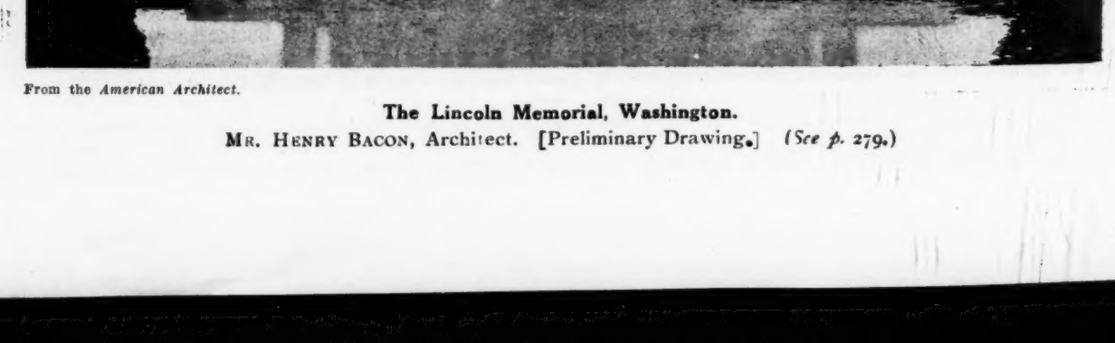
HIGH wages carry with them a definite responsibility that they should be really earned. It is perhaps, therefore, well that, in case this obligation should be lost sight of, employers of labour should insist on a proper return of work for wage. In giving notice that workmen who were not doing their best every minute of the working day were to be dismissed, Messrs. W. G. Tarrant, Ltd., pointed out that reduction of cost in house-building could only be accomplished by great effort. It appears that so far from resenting such a call some five hundred workmen employed by this firm have been good enough sports to promise last Saturday an increase in output of one-tenth, which would enable estimates to be reduced 7½ per cent. The people of this country are believed to be the best sportsmen in the world. We wonder if this excellent example by Messrs. Tarrant's workmen will stimulate others.

The British Industries Fair.

WE regret to have heard many complaints of the sales results at the White City exhibition, doubtless to some extent through an actual shortage of cash; but as the White City section of the whole Fair is largely devoted to luxuries it may be that at Birmingham, where practically the whole of the metal trades are represented, we shall find a better result and one of more practical value. At Glasgow the exhibits are chiefly of textiles, boots and clothing. However, there is no good in being disheartened, for it is impossible to think that so fine a show of pottery, leather goods, stationery and printing as that at the White City can fail to be of benefit to the exhibitors. Each year this great trade exhibition improves, and may we not hope that a great deal of misdirected effort in the production of would-be decoration will gradually find a better direction in view of the damning comparisons afforded at these shows between good design and bad?

The York Glass Appeal.

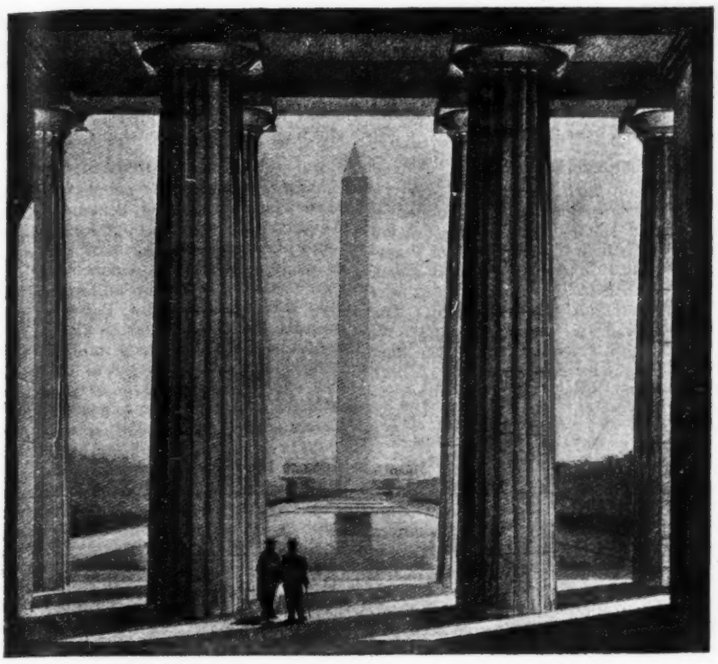
IN the appeal for subscriptions sent out by the Dean and Chapter of York particulars are given of the cost and method of reglazing the ancient glass in the Minster, and we are informed that no restoration will be attempted. But there are other means of injury besides "restoration," and it will be a shock to many who are interested in the preservation of the fabric from any injury to read the following: "In every case what may be described as a leaded screen of plain glass is inserted outside the coloured window at a distance of two or three inches from it to protect it from wind and weather." If this means that the plate glass screen is to be the kind of screen with which other churches in the country have already been defaced there is a prospect of a great injury to the fabric. If it is intended to place a screen of this kind outside the window, thus reducing the depth of the mullions by about three inches, the



From the *American Architect.*

The Lincoln Memorial, Washington.

MR. HENRY BACON, Architect. [Preliminary Drawing.] (*See p.* 279.)



From the *American Architect.*

The Lincoln Memorial, Washington.
MR. HENRY BACON, Architect.

architectural effect of the masonry is at once altered, the recess of the stonework is reduced, and a different proportion is established, contradicting the original intention, and injurious to the architecture. But this, serious enough in itself, is only one of the evils. The erection of a plate glass guard outside the window hides all the saddle-bars, and a fundamental part of the window construction is concealed. We have instances of the effect in other churches. It is most unsightly, leaving the impression of a gaping, featureless space instead of the construction of leaded glass and saddle-bars, the natural complement to the masonry. The passage we have quoted speaks of a "leaded screen." If the glass is leaded, all the lead lines will conflict with the leads and colour of the actual window inside the screen. It has also to be borne in mind that in the fixing of this outer screen of plate glass it must either, we suppose, be cemented on to the face of the stonework, or a rebate cut to receive it.

The Claims of Architecture.

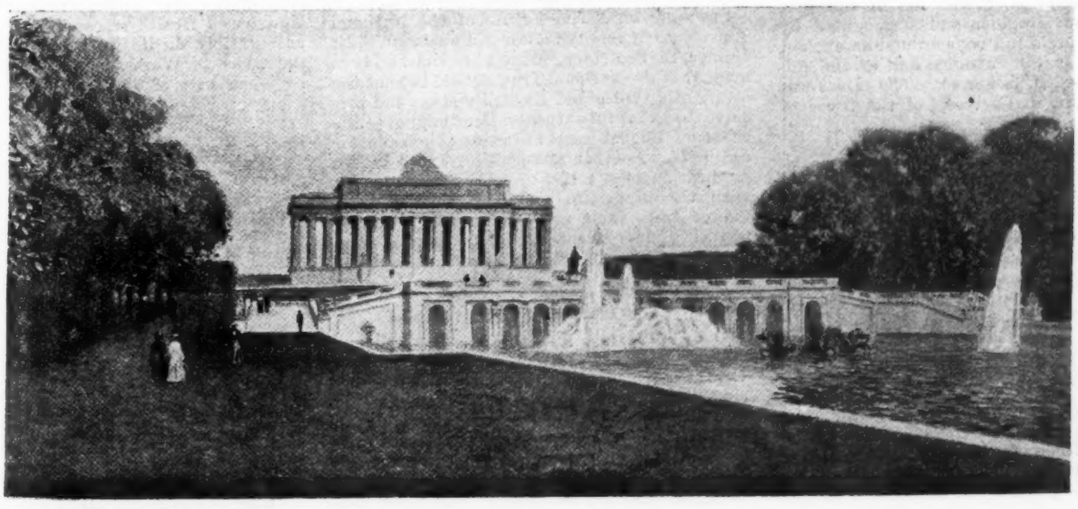
IT must be remembered that the stained glass in York Minster, in spite of its great beauty, is secondary to the importance of preserving the architecture intact, and it cannot be justifiable to alter the effect of the stonework to preserve the windows. Besides, it is not necessary, because properly re-leaded and well fixed to the saddle bars, the insecurity is sufficiently established. To disfigure the architecture for the sake of the windows would be to lose all sense of proportion, and we ought not to be biased for the sake of a particular need from considering what is best for the Minster as a whole. Surely, in the case of a piece of glass which is very thin, it can be "plated" with white glass, which would meet the need.

The Artists and the District Council.

WE are glad to see signs of the participation of artists in the civic duties which should form a part of their obligations. It appears that in a small town the artists have opposed the erection of electric light standards adopted by the more utilitarian elements of the locality. We know nothing of the circumstances of this particular case, but we do know that a great amount of injury has been done in the towns and villages of England, owing to the lack of participation of those who should have withstood many of the acts of well-intentioned vandalism which have taken place. So that it is done from public spirit and with a communal aim, the part which artists might play as citizens in influencing local opinion is very considerable, and though they have apparently been unsuccessful in this instance we trust that this action is a sign that artists are going to put their weight into the struggle to lift the civic life of this country into more becoming ways.

The City Churches.

FOR the moment it appears that the threatened City churches are safe, but one cannot help wondering at the curious point of view of those who argue that their removal to other places would be advisable, because it could be done at a cost of £12 per super foot as compared with £10 per super foot for new churches.



From the *American Architect.*

The Lincoln Memorial, Washington.
Suggestion by a Committee composed of MESSRS. C. F. MCKIM, D. H. BURNHAM, A. SAINT GAUDENS and F. L. OLMSTED. (*See p.* 279.

GENERAL NEWS.

Professional Announcement.

Mr. Charles W. Long, F.R.I.B.A., has resumed his London practice at 36, Bloomsbury-square, W.C.1.

Hove War Memorial.

The Hove war memorial, which was designed by Sir Edwin Lutyens, R.A., and takes the form of a grey granite column surmounted by a bronze figure of St. George, was unveiled in Grand-avenue, Hove, on Sunday last.

Builders' Clerks' Benevolent Institution.

At the Annual General Meeting of the Builders' Clerks' Benevolent Institution, held on February 22, Mr. Henry T. Holloway, after acting as President for three years, was succeeded by Mr. Edmund J. Hill.

A Royal Exchange Memorial.

A panel by Mr. Stanhope Forbes, R.A., portraying "The Destruction by Fire of the Second Royal Exchange in 1838," has been unveiled in the ambulatory of the Royal Exchange.

India Office War Memorial.

An albaster and white marble tablet, designed by Mr. T. H. Winney, Architectural Surveyor to the Secretary of State, was unveiled at the India Office on Friday last week, as a memorial to the staff of the India Office who fell in the war.

Famous Shrine Burnt.

It is reported from Loreto, Ancona, that the famous sanctuary there, the Chapel of the Virgin, has been destroyed by fire. The convent, with its paintings of the Virgin and priceless relics, are lost; and material damage is estimated at many millions of lire.

A War Memorial Avenue.

As part of the city memorial to those who died in the war, Bradford is being girdled by an avenue of trees. Roads forming a circle around the city have been chosen for the purpose, and already more than 2,000 saplings of elm, sycamore and lime have been planted.

New Royal Academicians.

At a general assembly of Academicians and Associates of the Royal Academy of Arts on Tuesday, Sir John Lavery, A.R.A., was elected a Royal Academician; Mr. William Strang, A.R.A., was elected a Royal Academician Engraver, and Messieurs Paul Albert Besnard (painter) and Albert Bartholomé (sculptor) were elected Honorary Foreign Royal Academicians.

Admiralty War Memorial.

A war memorial tablet, in the form of a tablet containing the names of the members of the Admiralty staff who fell in the war, flanked by war trophies and surmounted by a wreath of laurels and bays around an anchor, was unveiled in the entrance hall at the Admiralty, Whitehall, last week. The tablet was designed by Mr. J. G. West, of the Office of Works.

British Columbia Timber.

The Agent-General of British Columbia informs us that in spite of the slowing down of lumber production, and the temporary closing of many camps during the last months of the year, 1920 breaks all previous records in log production. During the past year there was scaled the equivalent to 2,046 million feet board measure, as compared with 1,758 million feet in 1919 and 1,761 million feet in 1918, showing an increase exceeding 15 per cent.

Rheims Cathedral.

At a meeting at the French Institute last week M. Pierre Champion delivered an address on the Cathedral of Rheims. In spite of the enormous damage, he said, the building could be restored; of 2,300 statues, sixty only had been destroyed by the enemy. All the open parts of the Cathedral were now protected by an immense corrugated iron roof, while the flagstone pavement had been renewed. The old Cathedral of Hincmar had been unearthed by recent excavations, in the course of which a well with leaden conduits had been discovered near the altar.

Peterborough Cathedral.

Lord Exeter presided last week over a meeting at Peterborough which launched a public appeal for £30,000 for the restoration of Peterborough Cathedral. The Dean of Peterborough said that it had been a great shock to the Chapter to learn how much work was needed for internal and external repair. The eastern chapel was in imminent danger of collapse, and at any time during the last hundred years might have fallen down. A high wind caused damage to the extent of hundreds of pounds to the roof.

University College Hospital.

In connection with the reconstruction scheme of University College Hospital, Mr. Paul Waterhouse, F.R.I.B.A., and Mr. George Hornblower, F.R.I.B.A., have been appointed joint architects. Mr. Waterhouse collaborated with his father, the late Mr. Alfred Waterhouse, R.A., in the design of the hospital buildings, which he brought to completion after his father's retirement; and he was also the sole architect of the medical school. Mr. Hornblower has been for many years the consulting architect to the Hospital Committee.

Architects' Estates.

The late Mr. Henry Thomas Hare, Past President of the Royal Institute of British Architects and the Architectural Association, of Farnham Common, Bucks., and Gray's Inn-square, W.C., who died on January 10, left estate of the gross value of £23,033, net personalty £16,600.

The late Mr. John Mitchell Withers, of Sheffield, architect and surveyor, a former President of the Sheffield Society of Architects, and a former member of the Council of the Royal Institute of British Architects, left estate valued at £57,932.

Yorkshire Archæological Society.

At the annual meeting of the Yorkshire Archæological Society held last week, Colonel Parker (President) said the Council had established Ancient Monuments Committees for the county, to watch the historic relics in their area. A very thorough record of earthworks was to be undertaken, including not only the acknowledged monuments but everything that could be called an earthwork. All monuments should be defended from trivial interference, and even important works should not be touched till they were carefully planned. The Ilkley excavations would be continued this season.

Preserving an English Village.

Speaking on "The Future of the National Trust" at University College last week, Mr. S. H. Hamer, the Secretary, said a suggestion had been made that the National Trust should become the owner of a typical old English village, and preserve it so that future generations might see the charm of English rural life as it had existed for centuries. Another useful thing would be the publication of a series of small books dealing with the properties under the Trust's care, viewed from their various aspects—æsthetic, historical and scientific. A further development might be the preparation of a schedule of all places worthy of preservation.

The Threatened City Churches.

In an address last week at St. Alban's, Wood-street, on the problem of the City churches, Lord Hugh Cecil, a member of the Commission, said, in his opinion, that portion of the report advocating a reform of the City churches should be kept separate from that part which recommended the destruction of nineteen of the buildings, with which portion he was unable to agree. No one could deny that there were far too many benefices in the City of London, and in view of the need of Church finance it was essential that part of the endowments should be devoted to Church work elsewhere. All that could be done without touching a single one of the churches. It might be thought that if the City of London desired to keep its shrines it should provide part of the money which could be obtained from the destruction of the churches and sale of the sites.

Super Electricity Stations.

We are not the only people flirting with the super electricity station scheme. Recently an American engineer has put forward a proposal for linking up all the power plants of the Atlantic sea-board of America. He estimates that a saving of thirty million tons of coal a year could be effected. Between Washington and Boston the seaboard, taken as 150 miles deep, requires seventeen million horse-power for industry and transport, and it is stated that the application generally of electricity would reduce this requirement to five millions. Steam turbine units of 300,000 kilowatts would be installed, it is suggested, and worked largely by tidal waters, while present efficient plants would be linked up into the scheme. This utilisation of present plants seems to us the most hopeful feature for carrying out any undertaking of such magnitude.

Building Research.

In submitting to the House of Commons last week a supplementary estimate of £485,000 for the Office of Works, Sir Alfred Mond (First Commissioner of Works) said one item related to a small building fitted up for technical research work of a very interesting and important character in respect of building materials, a matter as to which much more information was required. He was afraid some of the houses now being put up would fall to pieces, and that could have been obviated if more research work with regard to materials had been carried out before. In the ensuing discussion, Sir D. Maclean said he objected to spending public money on research into the quality of cement, bricks, and other building materials—what the country wanted was ordinary, reasonable, habitable houses, and the information already in existence was sufficient for that purpose. In reply to a question, Sir Alfred Mond said he was not aware that a staff at the Ministry of Health was engaged on similar work. The amount asked for was small, and the money would not be spent uselessly. Sir Frederick Banbury said he understood Sir Alfred Mond to say that without further research houses might fall to pieces—he did not know whether houses built by the Office of Works or the Ministry of Health were referred to, but in the past houses had been built which lasted not only for ten years but for centuries. In reply to a question as to whether separate research departments in the Office of Works and in the Ministry of Health were necessary, Sir Alfred Mond said the Office of Works research department was principally concerned with testing materials bought and concrete, and the Ministry of Health research department could not possibly do its work in conjunction with the Office of Works. The vote was carried by a majority of ten.

COMPETITION NEWS.

Glasgow.

For the High School of Glasgow.—Designs for a war memorial. Sending-in day, March 31. (See advertisement December 31.)

Rothesay.

For the War Memorial Committee.—Designs for a war memorial. The sending-in date for this competition has been extended to March 26 (see our issue for February 4). Members of the Society of Architects are requested not to take any part in this competition without first ascertaining from the Society that the conditions have been approved.

Other Competitions.

Other competitions still open include Royal Engineers' War Memorial (sending-in day, March 17); Campbeltown, April 8; East Ham, Feb. 25.

CORRESPONDENCE.

Housing Schemes and the Ministry of Health's Specification.

SIR,—The following may be of interest to the many architects and others responsible for the carrying out of housing schemes under the Ministry of Health :—

I am responsible for the carrying out of a fairly large scheme, and when submitting my plans to the Housing Commissioner I provided for various matters not included in the Ministry's specification, which I had found during my twenty-five years' experience in housing to be desirable for the comfort of the tenants and also for other reasons, but the Government officials responsible for the approval, whom I am quite sure have never had the supervision of the erection of working-class houses, refused to sanction the plans unless they complied strictly with the Ministry's specification. I accordingly, after much discussion, complied, merely in order to obtain a settlement and to "get on."

Some of the houses are now completed and quite recently the Housing Commissioner inspected them. To my utter astonishment he complained of including items which he considered unnecessary, &c.; and when I pointed out to him that they were items which I was forced to put in in place of what I considered essentials when submitting plans, and, further, that what had now been done was strictly in accordance with the Ministry's specification' he replied, "One need not take too much notice of *that* specification."

Further, the Housing Commissioner, after inspection, gave his opinion of the designs, and the one he singled out as the only bad one was the only Ministry of Health's design that was adopted. It no doubt had slipped his memory that that *bad* design belonged to the Ministry, and was put forward by his Department as the best procurable design. It was forced on—and accepted by—me to prevent further delay. The whole thing speaks for itself.

One other point I should like to mention, viz., that the only difficulty experienced in obtaining materials for the expeditious carrying out of the scheme has been with those materials which I was forced to obtain through the D.B.M.S., several items having been on order for nearly six months and not yet to hand, and in some cases where they have come to hand portions which were required first have come last, and *vice versa*.

"HOUSING DIRECTOR."

Burton-on-Trent Girls' High School Competition.

SIR,—I have read with much interest the criticism of the designs submitted in this competition, which appeared in your issue for Feb. 18. Surely your correspondent is unduly severe in his somewhat wholesale condemnation of the designs submitted. The names of several of the non-premiated competitors suggest that some of the unplaced designs must have attained a high standard of merit.

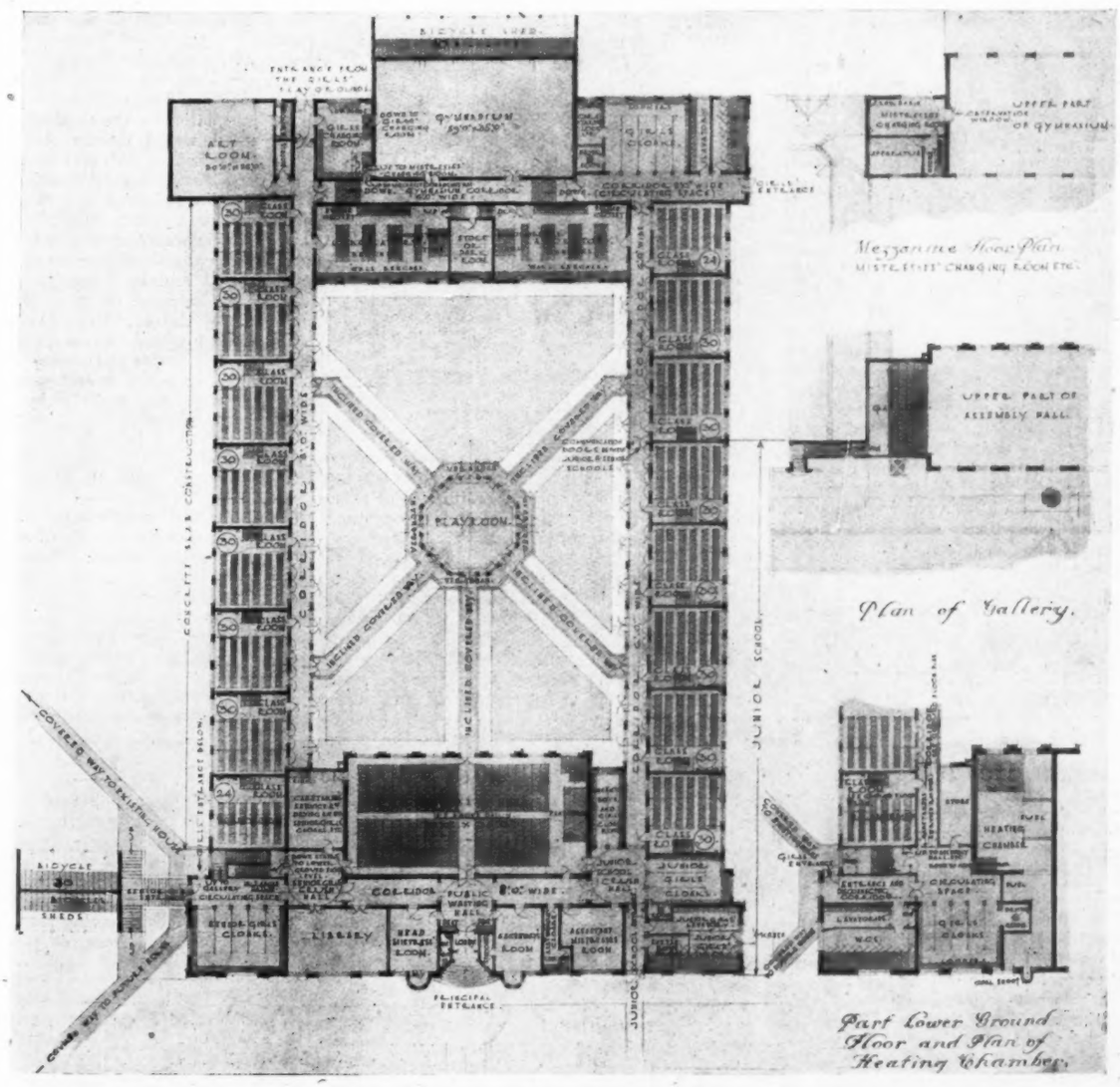
Your critic states that "only two competitors (Messrs. Thomson of Leicester and Hague of Derby) seem to have mastered what is really meant by cross-ventilation." "The one by Mr. Thomson has a feature which no other plan has, inasmuch as one side of each class-room can be thrown completely open by means of glazed doors." "This plan (by Mr. Hague) is the only one of all those sent in that provides separate sanitary conveniences for the kindergarten boys."

With reference to the paragraphs above quoted, I am venturing to send you the design which I submitted in this competition. Without claiming any particular merit for this scheme, I do claim that the above paragraphs are not applicable, and that most of the points raised by your critic have received consideration. It appears to me that these sketch plans should meet the reasonable requirements of "doctors and scientists," and at the same time that there are possibilities in the elevational treatment.

Shanklin. D. WEST, Lic.R.I.B.A.

Competitions.

SIR,—I read with interest the letter of Mr. Arthur Welford in your issue for the 18th inst.,



GROUND FLOOR.

Burton-on-Trent Girls' High School Competition. Design by MR. D. WEST. (*See letter on this page.*)

with regard to competitions and the assessing thereof. I am not in agreement with Mr. Welford in one or two points, and as my views may be of interest to your readers I give them for what they are worth.

Promoters and assessors should be chary of imposing conditions which will tie the hands and fetter the judgment of competitors; and if a competitor finds that he cannot produce the best possible design under the "conditions" imposed he is perfectly justified in ignoring them.

I agree with Mr. Welford that very few designs placed first by assessors will be found to comply strictly with all the conditions laid down, and I think it is for that very reason that they deserve to win.

An architect who has got hold of a really fine idea, and has the courage of his convictions to hold on to it irrespective of any "condition" whatsoever, because he knows it is the best possible scheme to meet the given requirements in a broad sense, deserves to win. I have too great an opinion of assessors to believe that one of them would turn down such a fine scheme because some "two-penny half-penny" "condition" had been violated.

After all, it is to be assumed that what promoters and assessors are really after is the best possible solution, in a broad sense, of the problem placed before competitors; and I believe that assessors do, invariably, select such schemes for first place in our competitions. All honour to them for it.

H. T. WRIGHT, Capt.

Architectural Students' Competitions.

SIR,—Mr. Keen takes me to task for not bringing my views before the Institute instead of the public Press, but as my criticism largely extended to bodies over whom the Institute exercises no control, such a course would have been of little value. The Institute, although its Committees do their work exceedingly well, is not, however, blameless, and I would remind Mr. Keen that neither the Council of that body nor the members of the Board of Education generally had any say in the appointment of this last year's Prize Committees. My entire argument rests on the fact that the constitution of the jury or committee *is the essential element* of successful adjudication; given the proper jury minor details will disappear of themselves. Some committee or jury is no doubt appointed to draw up the conditions and programmes, and logically the same committee should make the award. Where, therefore, arises the difficulty of publishing the names of the jury with the programmes? In attacking a system one does not necessarily attack individuals, and for my part I have always found the older members of the profession exceedingly kind-hearted and generous, not least so Mr. Keen.

The present-day student, however, is quite ready to take his gruelling standing up, and much prefers a frank and critical statement of the defects of his work to a uniform measure of well-meant encouragement, and expects in return carefully-studied programmes, rigorous conditions, and critical, logical awards.

ROBERT ATKINSON,
Director of Education A.A. Schools.

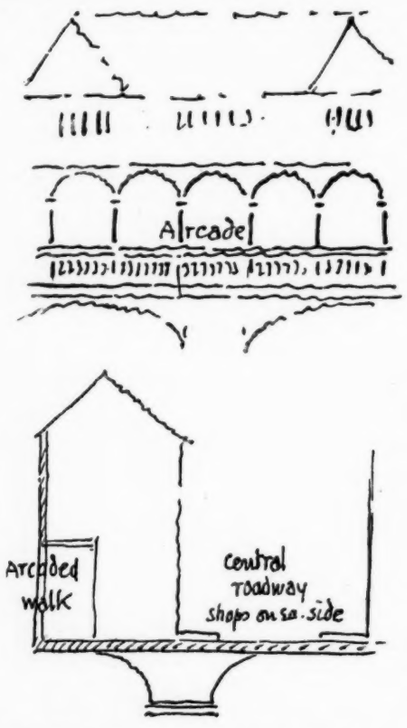
Architecture and Commerce.

SIR,—Apropos of the comments in last week's issue of *The Builder* on Mr. Selfridge's address at the A.A., the "column a night" suggestion, and the proposal for an organised campaign of architectural propaganda, I think the numerous articles in the daily newspapers following Mr. Selfridge's lecture should be sufficient evidence that the meeting at the A.A. was in itself a very successful piece of propaganda. The column a night and general flourish of trumpets idea can perhaps be bettered by more subtle and penetrating methods. The A.A. in its own way has a fairly well-thought-out campaign and follows it consistently, but I have advocated for some years past that a central bureau should be established with the definite purpose of placing architecture in the position it is entitled to hold in the public mind. By what methods? Well, let us leave these until the bureau is established; we need not divulge them now. That success would follow I am convinced, but only if it is realised that the first essential is to produce good architects. This can only be done by proper training.

F. R. YERBURY, *Secretary.*
The Architectural Association.

A Bridge with Houses.

SIR,—The suggestion in a recent issue for a bridge with houses is very alluring to lovers of the picturesque, but it is possible to build a bridge of houses which to a passenger traversing it does not appear to be a bridge at all, and is not to be distinguished from an ordinary street. This is the case with the small bridge over the Avon, at Bath. From the banks of the stream it forms a delightful picture, but on the bridge itself there is nothing to differentiate it from Pulteney-street. The accompanying sketch is



intended to suggest how the picturesque effectiveness and also the utility of bridges of this type may be best secured. The overhanging story may be continuous, though broken up with gables, &c., in varied groupings, but frequent openings should be left on the street level between the central roadway and the outer arcades, giving glimpses of the river to pedestrians and wheeled traffic on the main roadway. The lower story should therefore be broken into blocks of varying length. At one or two points the houses might be continued across the road on an arch. Unless some such provision is taken the bridge of houses may prove to be something quite different from what was anticipated.

G. CAMERON.

The Architect and his Assistant.

SIR,—The following opinions are made on my own responsibility, and not as representing the considered views of my colleagues on the Central Executive Council of the Assistants' Union.

Mr. MacArthur Butler in his letter in your last issue, admits "the activities of the A. & S.A.P.U. are having at least one good result in causing quite a flutter in the various professional dovecotes, and in drawing attention to matters affecting the public as well as the profession." It seems to me he also admits indirectly a sense of what should be the profession's duty in issuing a warning as to its overcrowded and alleged uneconomic state. But why, may I inquire, have not the Society of Architects and the Royal Institute of British Architects, long ere this, given more consideration to a cure for this canker which we know is attacking the economic roots of our profession?

We have been for years in intermittent touch with this problem, but quite lately, only indeed since the formation of the Assistants' Union, have we been able to see and hear a little more of it. Not for a generation or so, you will agree, would any remedy take effect sufficiently to rectify this state, and yet, instead of making some attempt to apply some such remedy, what do we find? An increasing consensus of opinion amongst practising architects that the only right and obvious means whereby his assistants may dispel their grievances, in so far as they apply to their present totally inadequate rate of wage, is to make an endeavour to leave the ranks of the assistant class and to enter at the earliest possible moment those of an already overcrowded practising class. Is it not obvious, Sir, that any arguments put forward against the Union's minimum wage proposals on such a basis is largely beside the question?

Personally, I think each of our professional Societies should integrally contain an active committee whose duty it should be: first to educate the public (at present appallingly ignorant of such matters) to a fuller conception of our art, the qualifications requisite to, and the functions expected of, those who practise it, and, second, to warn that same public against the popular fallacy of thinking any youth who in his infancy has shown an aptitude for drawing, *must* enter a profession which, according to latest admissions, will not allow of a decent income to its practitioners, much less their assistants. Agreed. The problem may present many practical difficulties, but is one ripe for immediate consideration and tentative experiment, and, later, for the application of an active remedy. I would merely plead now for an honest recognition of it, and the development of a reasonable and responsive attitude towards it.

In conclusion, may I just quote for the consideration, not only of Mr. MacArthur Butler but of all who may or may not be interested—sympathetically or otherwise—in the assistants' organisation and its aims, the words of our estimable Chairman of Executive in a recent issue of the Union's *Journal*: "Far-reaching movements founded on indisputable right have at all times progressed slowly and doggedly, combating conservatism and popular prejudices, and often appearing to suffer by the inflexible attitude of their more determined advocates."

JOHN B. HECTOR,
Vice-Chairman, Central Executive Council, A. & S.A.P.U.

SIR,—In last week's issue of *The Builder* the Secretary of the Society of Architects made the following statement: "Potential architects should be taught to regard the profession of architecture as a healthy rather than a remunerative one." As a potential architect I disagree with his teaching, and fail to see why an architect's share of this world's goods should be less than that of his brothers in other professions, having spent equal time and money in training. Is it fair that one who presumably is drawing a fixed salary should express such sentiments?

ARNOLD HOOPER.

SIR,—I wish, through your columns, to ask the Secretary of the R.I.B.A. whether the Institute's scale of fees allows for a salary of £6 6s. a week for the architect's assistant. By assistant I mean the draughtsman who, week after week, month after month, year after year, is kept very busy making working drawings, details, and so on, from his principal's rough sketches.

HENRY HYAMS.

"Modernism and Design."

SIR,—While Mr. G. Maxwell Aylwin repeats that my answer to a letter was (and therefore another would be) "engaging in a contest of eloquence and style," I can hardly discuss his communication.

W. R. LETHABY.

A SPECIAL General Meeting of the Royal Institute of British Architects was held at 9, Conduit-street, W.1, on Monday last, Mr. J. W. SIMPSON (President) in the chair.

The Royal Gold Medallist.

A motion from the chair, "That subject to His Majesty's gracious sanction the Royal Gold Medal for the promotion of Architecture be presented this year to Sir Edwin Landseer Lutyens, R.A., in recognition of the merit of his work as an architect," was passed unanimously.

Competitions for Housing Schemes.

The Special General Meeting was followed by a Business Meeting, at which the Chairman moved that the following clause be added to the Regulations for Architectural Competitions —viz.: "In the case of a competition for a housing scheme the conditions shall be in accordance with the 'Model Conditions for Housing Competitions' approved and issued by the Royal Institute of British Architects."

The motion was unanimously carried.

Honorary Associates and Retired Fellows.

On the motion of the Chairman, the following proposals, involving an amendment of the Charter and Bylaws, were adopted:—

HONORARY ASSOCIATESHIP.—Membership not to exceed sixty; entrance fee and subscription to be abolished; privilege of voting in the election of the Council and Standing Committees to be abolished.

RETIRED FELLOWSHIP.—Qualifying period of membership to be reduced to 25 years.

A New Class of Membership.

It was decided that a new class of membership be created, under the name of "Subscribers," who will be non-professional, have no privileges of membership, and no power to use any affix indicating membership of the R.I.B.A. Subscription to be one guinea per annum. They will be entitled to use the Library, to attend Ordinary General Meetings, and to receive a copy of the Annual Report.

Honorary Corresponding Members.

It was decided not to increase the present numbers of Honorary Corresponding Members, except in the case of Belgium (where the number is to be increased from three to four), and the United States (where the number is to be increased from ten to twelve).

Election of Members.

The following candidates for membership were unanimously elected:—

AS FELLOW.

J. C. Dewhurst, Dublin

AS ASSOCIATES

C. D. Allderidge, Bridlington.
S. Balmer, Clapham.
H. Bernton-Benjamin, London.
J. Brown, Northampton.
S. G. Bulstrode, Christchurch.
J. E. Burke, Dublin
H. Burleigh, Hastings.
P. V. Burnett, London.
G. F. Clarkson, London.
H. R. Collins, Cambridge.
W. N. Couldrey, Paignton.
B. Dangerfield, Finchley.
P. Dangerfield, St Albans.
S Davidson Edinburgh.
W. A Davidson, Aberdeen.
P. S. Dixon, Lewisham.
H. H. Earnshaw, Cheadle.
S. C. Feltham, Tottenham.
F. G. Geary, Streatham.
A. Gordon, Bucksburn
R. T. Grummant, Highgate
F. Holt, Liverpool.
F. J. Horth, Hull.
S. B. Howard, Liverpool.
H. C. Hughes, Cambridge.
B. H. Jackson, Wimbledon.
S. Kaye, Edinburgh.
L. H. Kearne, London.
R. S. Kerr, London.
J. H. Lumb, York.
D. Macpherson, Finchley
F. A. Mallard, London.
S. Mann, Wigton.
F. B. Nightingale, Wandsworth.
A. C. Pickford, Wandsworth.
A. W. Reid, Gerrard's Cross.
F. Richardson, Carnforth.
J. Rickatson, Hull.
L. O. Ross, London.
J. E. Sanders, Liverpool.
E. W. G. Short, Forest Hill.
E. R. Silver Muswell Hill.
J. S. Smith, Sheffield.
H. A. Thomas, Liverpool.
F. A. Walker, London.
F. P. Webster, Sheffield.
A. S Whitburn, Woking.
C. Whitby, Chelsea.
R. C. White-Cooper, London.
H. E. Wilson, London.
W. W. Wood, Forest Hill.
B. W. Woodhouse, Heckmondwike.
G. G. Wornum, London.

AS HONORARY CORRESPONDING MEMBER.

Albert Louvet, President of the Société des Architectes Diplômés par le Gouvernement, Paris.

AS HONORARY ASSOCIATE.

W. T. Plume, Editor of *The Builder*, London.

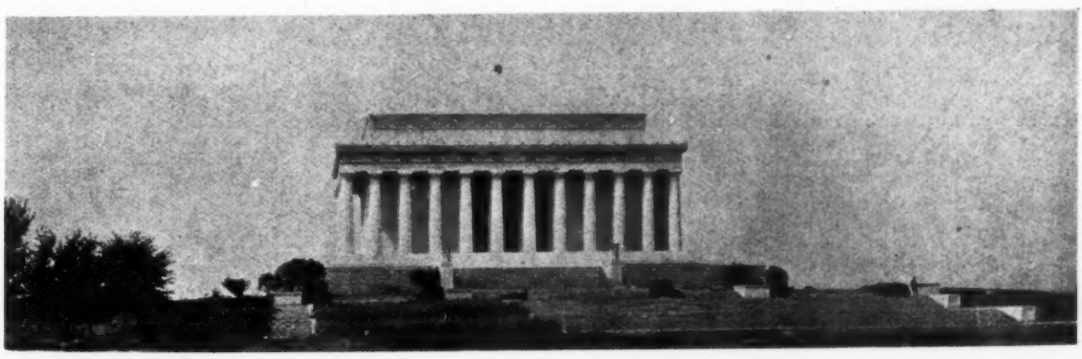
Dynamic Symmetry in Ancient Architecture.

A joint meeting of the Royal Institute of British Architects and the Hellenic Society, under the chairmanship of Sir Charles Walston, was held at the premises of the Institute on Tuesday, when Mr. Jay Hambidge gave a lecture on "Dynamic Symmetry in Ancient Architecture." The lecture was a continuation of Mr. Hambidge's paper read at the Royal Institute last year (*The Builder*, Feb. 27, 1920) and gave an account of further researches he had carried out since that date.

In the course of his remarks, he said with the Greeks of the classic period it was customary to study arithmetic with the aid of simple geometrical diagrams. Plato, in the Theaitetos, supplied a lesson in that method of study wherein root rectangles were used. If this method of arithmetical study were used, and the same diagrams, the result was dynamic symmetry as he had worked it out from the best examples of ancient Greek architecture and general craftsmanship, such as that supplied by surviving objects in bronze and pottery

During the past year some of the most important of the classic buildings in Greece had been re-measured and examined in detail for the purpose of determining precisely the methods used by the ancient master builders in fixing their proportions, or, as they termed it, symmetry. These buildings included the Parthenon at Athens, the temple of Apollo Epikurios at Bassae in Phigaleia (both by the Periclean architect Iktinos), the Zeus temple at Olympia, the temple at Sunion, and the temple of Athena Aphaia at Ægina. It was his belief that the results of this labour showed conclusively that the classic Greek method of fixing building proportions had been recovered.

An interesting situation was revealed by a comparison of the two buildings designed by Iktinos, the Parthenon at Athens and the temple of Apollo at Bassae. The symmetry of the Parthenon was characteristic of the building; it was subtle, refined and modified in many ways by the introduction of curvature. The building at Bassae was without curvature except that of the circular columns and their capitals. The Parthenon column had an extremely delicate entasis, while that at Bassae was perfectly straight Of all examples of Greek design so far found to conform to dynamic



From the *American Architect*.

The Lincoln Memorial, Washington (as erected).

MR. HENRY BACON, Architect.

[This design was selected in competition, and has been carried out in Washington. The most important object is the statue of Lincoln, which is placed in the centre of the memorial. The portion of the memorial where the statue is placed is unoccupied by any other object that would detract from its effectiveness, and the visitor will be alone with it. The smaller halls at each side of the central space each contain a memorial, which can be seen from any part of the hall. They are partially screened from the central portion where the statue is placed by means of a row of Ionic columns, giving a certain isolation to the space they occupy. By means of terraces the ground at the site is raised until the floor of the memorial itself is 45 ft. higher than the surface. A circular terrace 1,000 ft. in diameter is raised 11 ft. above the present grade, and on its outer edge are planted four concentric rows of trees, leaving a plateau in the centre 755 ft. in diameter. In the centre of this plateau, surrounded by wide walks, rises an eminence supporting a rectangular stone wall 14 ft. high, 256 ft. long and 186 ft. wide, on which rises the memorial.]

symmetry that furnished by the Bassae temple was the simplest.

The highest type of symmetry was furnished by areas which were fixed by a diagonal to two square in relation to a side of one of the units. If a side of one square equalled 1, two sides equalled 2; and a diagonal of the two units equalled 2.23606 plus, or root 5. The mystery of classic Greek proportion would, therefore, be found in an area the end of which was 1, and the side .23606 plus, or 1 by 2.3606.

Iktinos seemed to have thoroughly understood this, as the nave, the column centering, and the placing of the statue of Athena, were arranged in strict accord with the proportions inherent in this peculiar figure. The proportions of the Parthenon unfolded from the centre of the statue of the goddess like those of a flower.

The proportions of the Bassae temple were another evolution of this basic form of .236. The overall plan at Bassae was 2.236 plus .236 or 2.472, *i.e.*, four whirling square rectangles, or .618 multiplied by 4. The stylobate proportion was 2.618, or 1.618 plus 1. The naos proportion was 3.236, or 1.618 multiplied by 2. The cella proportion was 2.472, or a similar figure to the whole. If the length of the temple were divided by 2.36 the length of the cella was obtained. If the width of the temple were divided by 2.36 the width of the cella was obtained.

The Zeus temple at Olympia and the temples at Ægina and Sunion showed variations of the same basic ideas of proportion found in the Parthenon and the temple at Bassae. It should be remembered that the proportions of all details in these buildings conformed strictly to their general proportions.

Discussion.

Mr. P. W. HUBBARD, in moving a vote of thanks, said about the time to which the lecturer was referring a certain change had come over what might be called the "art effort" of the country—a change from the static to the dynamic. He thought there was a field of research in the same direction open in Gothic work, which seemed to possess a symmetry which was used statically.

Mr. CLOUDESLEY BRERETON, in seconding the vote, said he believed all the arts were one, in the sense that they were only different forms of self-expression, and what differences there were were due to the different methods in which artists worked. Mr. Hambidge was not trying to form a new theory; he was attempting to recover a very valuable piece of lost technique, and nothing more. Most of the arts, whether literature, painting, sculpture or architecture, began first of all by guilds of craftsmen building up certain rules of use and wont; then definite rules were formed, but it did not stop there, because the more philosophic amongst the craftsmen investigated still further and found that certain definite and logical rules were the basis of the conclusions at which they had arrived.

Mr. FYFE said it seemed inconceivable that the Greeks, who were so careful with their details, should have been slipshod in their main dimensions, and it appeared that Mr. Hambidge had a very strong case. Many people thought Mr. Hambidge's theory was going to lead to something more, and the speaker thought he should define exactly how he thought it would help modern art. If there was anything in the theory he thought it would have scope in monumental architecture, pattern design of all kinds, and possibly in sculpture.

The CHAIRMAN said the Greeks used their eyes more than did present-day artists; they wanted to see things graphically, and not by algebraical formulæ. He thought Mr. Hambidge was working on the right lines, and urged him to continue with his research.

Mr. GEORGE HUBBARD said he would like to hear more about the orientation of Greek temples, and would have been interested to have heard that the orientation of the Greek temples coincided with the orientation of the Egyptian temples, as he thought it did.

The vote of thanks was heartily accorded.

From *The Eighteenth Century in London.*

St. Dunstan's in the West, Fleet Street.

From the original water-colour by T. MALTON. (*See p.* 290.)

An Architect in Mesopotamia.

On Wednesday, Major Edward P. Warren, F.R.I.B.A., read a paper on "Mesopotamia: Architectural Impressions of a Recent Tour." The lecture was illustrated by a number of original slides, and by drawings and photographs collected by Major Warren during his stay in Mesopotamia. There was also an exhibition of a large number of water-colour drawings by Mr. Lionel Muirhead.

EXHIBITION NOTES.

THE ALPINE GALLERY.

The exhibition of paintings and drawings by W. Rothenstein at the Alpine Galleries, presents us with a good idea of the capacities of this artist for vivid realisation of character, equally in landscapes, buildings and portraits. The colour and texture of old buildings are graphically conveyed in the old Tudor buildings in "The Storm" (1), "The Artist's Studio" (3), "The Old Barn at Glen Farm" (16), "Happisburgh Church" (33), and "The Barn at Oakridge Farm" (26). A most delightful piece of colour is "A Winter Study" (31), and "A Wych Elm," forms the subject of some telling tree studies in four of the paintings. The paintings of war desolation set vividly before us the havoc of war, and in "Outside Havrincourt Church" (9) we have a telling mosaic of colour. Amongst the portrait paintings is some distinctly fine work, as in "Eli the Thatcher" (21) and "An Artist in France" (2). The exhibition is one likely to enhance the artist's reputation. A few admirable carvings in wood and ivory, by Wm. Simmonds, are also shown. The Little Angel (8) is a delightful little figure; this, and the "Young Faun with Squirrel" (79), are the kind of carved work we want to see much more of in our buildings.

THE SENEFELDER CLUB.

Some vigorous, expressive work is to be seen at the eleventh exhibition of the Senefelder Club, and, good as the collection is, we think it ought to become increasingly interesting. Every succeeding exhibition should further demonstrate the charm and value of artistic lithography in the expression of line and tone. Breadth and vigour, delicacy and mystery, may unite in a single print like that of E. Saltoft's fine study of an old man (43). As for the possibilities of vigorous portrayal and freedom of handling, we have the masterly sketch of a sawyer (82), by Frank Brangwyn, and the life and movement in E. Blampied's "Splash" (63). The somewhat unusual study of a man by Sargent (30) is an able drawing, and full of life is the portrait of a man by G. Spencer Pryse (58). The full length of Max Beerbohm (46) by W. Rothenstein is impressive. Tragedy is really conveyed in "Drowned" (150), by Saltoft, and a very clever drawing of peasant life is the "Father's Dinner" (48), by Blampied. Students of architecture will be interested in Pennell's telling view of the rebuilding of the Campanile, St. Mark's, Venice, during reconstruction (26), for it shows what a fine tower might result with an outline similar to that produced by the scaffolding. The "Old and New Rome" (22) shows the terrible mixture which modern building is producing, seriously to the detriment of the old. An excellent composition is "Cupid's Hour" (13), by Charles Conder. Prints from Millet, Corot and Whistler, with much clever work by living artists, make up a most interesting exhibition, and we only wish that good architectural subjects were more frequently shown.

The British School at Rome.

The Prince of Wales was present last week at the meeting of the Royal Commission for the Exhibition of 1851, when he was installed as President of the Commission in succession to Prince Arthur of Connaught.

The following elections for the ensuing year were made: Faculty of Archæology, History and Letters: Mr. Edward Bullough, Mr. A. M. Daniel, Sir Arthur Evans, Mr. G. F. Hill, Professor H. S. Jones, Mr. G. A. MacMillan, Professor Thomas Okey, Mr. John Penoyre, Professor J. S. Reid, Mr. Arthur Smith, Mr. G. M. Trevelyan, Sir Charles Walston, Professor W. H. Woodward. Faculty of Architecture: Sir Reginald Blomfield, Sir John Burnet, Mr. H. Chalton Bradshaw, Mr. W. Curtis Green, Sir Edwin Lutyens, Mr. Ernest Newton, Professor C. H. Reilly, Mr. Gilbert Scott, Mr. J. W. Simpson, Sir Aston Webb. Faculty of Sculpture: Sir Thomas Brock, Sir George Frampton, Mr. C. S. Jagger, Sir W. Goscombe John, Mr. Gilbert Ledward, Mr. Bertram MacKennal, Mr. F. W. Pomeroy, Mr. J. Havard Thomas, Sir W. Hamo Thornycroft.

ST. MICHAEL'S CHURCH, ST ALBANS.

By H. V. Molesworth Roberts.

The church of St. Michael is situated in a village of the same name (a western suburb of the city of St. Albans) on the right bank of the Ver, a sub-tributary of the Colne flowing south-eastwards between the Roman and mediæval sites. Small though it is, this church has a certain romantic character almost unmatched even in this historic country; for it is not only itself of unknown age but it is planted in the very heart of a district full of the greatest historic interest and significance. It is a building, too, which, pregnant with the most remarkable associations reaching back into the remote past, has yet to be fully "discovered" by antiquaries and appreciated by the cultured public at large. It is, indeed, one of those fascinating spots in our only half-explored islands which remain concealed behind obscure corners. St. Albans Cathedral, for example, is patrolled day by day by scores of eager sight-seers—the older St. Michael's Church across the river, and the still more ancient walls of Verulam, are as nothing to them. Now at last, however, a movement is being set on foot to awaken interest in this romantic building and its surroundings; and it is intended that its high rank among our ancient monuments—hitherto scarcely realised—shall be fully made known.

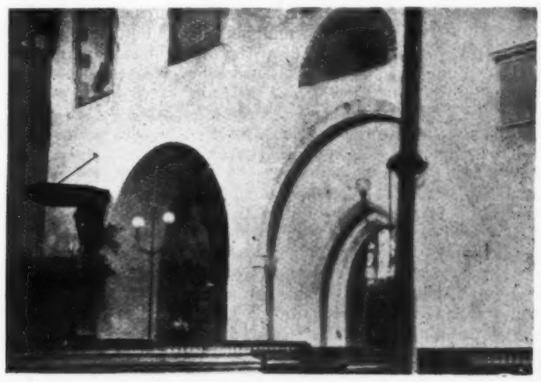
The church itself, seen as one approaches it up the straggling and delightful village street—typical of the old-world nature of the spot—tops the hillock before us, and forms part of a picturesque and leafy group. St. Michael's, like many another of the romantic rural churches which are the pride of England alone, owes much of its charm to the fact that in its present state it represents the growth of centuries, under many different influences. The old, crude walls, with their arches of ancient tiles, cut into below and added to above in later periods, testify at one glance to this. The late Mr. Francis Bond, clear-sighted exponent of our native art, aptly summarises its growth in his "English Mediæval Architecture" (Vol. 1, p. 243). He starts by weeding out the "nineteenth-century gas standards," goes back in order of date and strips off successively the pulpit and various internal features, till he arrives in imagination at the original construction of the building in Saxon times. Let us, then, review in order the periods of the church's growth.

The Roman Period.—To the Roman period may be ascribed much of the essential fabric of the church. We have seen that many Roman tiles were used about the church, some still re-used even in mediæval days, and these show but nearly the whole fabric is of Saxon and Roman materials; it is most probably the pre-Ethelbert Chapel of Bertha, and it is even thought that some of the present work was built as it now stands in Roman times, an idea at present being revived at our St. Albans fane, whose seniority even to St. Martin's is now suggested. The sister monument at Canterbury, St. Pancras' Chapel, is wholly of Roman tiles built up in early Saxon times. From its connection with the forum, St. Michael's may have served as the basilica, or trading-hall, of the Roman city. Moreover, an apse is recorded to have once existed, but was destroyed in the fourteenth century—one more suggestion of the early Christian or Roman date of this venerable building.

If, however, the mortar evidence suggests a Roman date but the position belies its connection with the civic buildings, the present writer has advanced the suggestion that a compromise may be arrived at by assuming that St. Michael's was an early Christian church, in the late Roman period, and by attributing it to St. Germanus, who we know visited Verulam *c.* 300 A.D. This will still make St. Michael's of greater probable age than St. Martin's, Canterbury.

The Saxon Period.—We come to much surer ground in the Saxon period. St. Michael's, as a Christian church, is known to have been founded—along with St. Peter's and St. Stephen's churches—by Ulsinus, or Wulsin, in the year 948 A.D.; and it is here the definite history of the little church begins. With rough stones and flints, together with these tiles and other fragments culled from the ruins around them, many places of worship were built up by loving hands, fresh with the impulse of a new and inspiring faith, and this relic, left by their pagan predecessors, may well have been adapted for the purpose. The present nave and chancel, both rectangular, with the tower at the western end (for Saxon work was evident within it), show the church to have been of the type frequently to be seen throughout England, representing the last stage of plan development previous to the growth of the transept just before the Conquest. In the illustration of the nave interior, looking towards the Lady Chapel and pulpit a small round arch of Roman tiles set edgeways may be seen; this is the head of one of the original windows of the Saxon church, when all else was solid wall, and the primitive roof was on a level with the present clerestory sills. The plaster was purposely removed to show these openings, of which the one in question, over the pointed door to the Lady Chapel, runs through into the latter, and though semicircular to the nave is built in at the springing so as to appear a small stilted arch on the chapel face. This simple internal splay is earlier in type than the double

Exterior, from S.E.



Interior of Nave, from S.E.*

St. Michael's Church, St. Albans.

The history of St. Michael's, unlike most of our parish churches, goes back not only to Saxon but even to Roman times. As a Saxon institution it can be numbered in point of age among the first few dozen churches of our land; as a tenth-century foundation it excites our imaginative wonder; but when it is considered that it occupies the site—or even embodies part of the ancient walls—of a pagan building, we may at once place it among the privileged few.

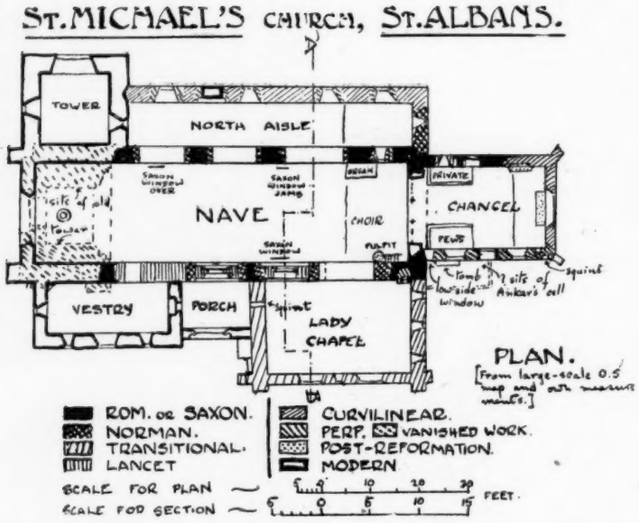
St. Michael's can, indeed, claim to have been built within the walls of what was one of the most important Roman cities in England—about the area of Pompeii, we are told, a fact difficult at first to grasp. Somewhere near the present church, which stands in the very heart of the Roman city, were no doubt the centres of their social and civic life—the forum, or open market-place, and basilica, or law-court and trading hall; of the former, foundations and pavements have been excavated, together with some sleeper walls apparently belonging to an aisled building, probably the Roman basilica, which extended under the tower of the church, whose nave walls are at an angle and evidently later. This tends to disprove the theory that the church itself embodied the walls of some such pagan structure, but we may assume these belong to a much earlier time in the Roman occupation, and the foundations were disregarded when the more monumental structure was commenced—perhaps after a destructive fire.

to good effect in nave and chancel. They are to be seen from outside, clustered more especially in the angles of nave and chancel and in the west end of the north wall of the latter, possibly a relieving arch in the masonry. Built up in the northern wall inside the chancel is to be seen a perfect round-headed doorway, likewise of these ubiquitous red bricks; it is probably pre-Conquest, and has been blocked in modern times.

A local antiquary, Mr. C. H. Ashdown, has revived the theory, now based on an examination of the masonry in the core of the wall, that the nave walls as they stand were actually built not by Saxon but by Roman builders; a supposition confirmed by the great thickness of the walls, unusual in Saxon work. He states that the core of the wall when revealed in 1897 showed white Roman (not drab Saxon) mortar. As the original floor was far below the present one the building must have been very lofty—another piece of evidence in favour of the idea. The little tile-built windows may have been inserted in Saxon times.

If this is the remnant of a stately Roman structure it is a relic of supreme importance to be greatly prized, and St. Michael's can indeed lay proud claim to be the oldest church in England. Probably the most fascinating, as well as the most ancient, church in England, however, is St. Martin's, Canterbury, which, like St. Michael's, stands in a locality inseparable from Roman times. Here, not only the nave

* Showing Lady Chapel, head of Saxon window (with Roman tiles), and Pulpit.



splay of later Saxon times. The original construction, then, shows us a simple nave without aisles, but with small round-headed windows high in the walls, four on each side of the nave. A similar growth seems to have occurred at St. Stephen's Church, but there much more of the early work has been destroyed; in this respect St. Michael's has indeed been fortunate.

THE NORMAN PERIOD.—In the Norman period the growing congregation, coupled with an increased interest taken in the church, necessitated various outgrowths to the nave. During the twelfth and thirteenth centuries three most important additions were made to the church: side aisles in the Norman period (twelfth century), a Lady Chapel which seems to be Transitional Norman in style (*i.e.*, end of the same century), and a clerestory added to the nave, whose windows are of widely-splayed Lancet type, dating from the thirteenth century. Some doubt has existed, however, as to the order of erection. The roof of the chapel is higher than the clerestory windows, which therefore look into an internal space and are unglazed; it is not likely that these were built so placed, but the Lady Chapel—or at any rate its upper part—is evidently later, and must have been built over them. Either, therefore, the narrow Norman aisle was replaced by the Lady Chapel after the thirteenth-century clerestory was added (the improbable theory of Mr. Francis Bond), or else—more probably—the clerestory is a Norman one, the Lady Chapel having been added subsequently and the windows altered by the thirteenth-century builders who followed. The point can only be enlightened by a close study of the masonry.

At any rate, the aisles were the first transformation. Outside walls were first built, and roofs were laid across the spaces thus created. These were then thrown open to the central part of the church by hacking out of the Saxon walls several broad, low, round-headed archways, thus leaving between them pieces of the original wall, oblong on plan, which clearly show the architectural student what is meant by the "pier" in its simplest form, the direct descendant of the Roman arch-pier. These arches, by their severe character and almost total absence of mouldings, suggest an Early Norman date, but are placed by antiquaries as "Late Norman," *i.e.*, in the later part of the twelfth century, this being an instance of the survival of building tradition in outlying parts. By that process, too, the old rude Saxon openings above were broken into, and blocked up wholly or at their lower ends, leaving the few fragments of arches at their heads that we see to-day. To the north of the nave, then, an aisle was formed, with three arches opening on to it; and further east the blank stretch of wall—pierced in the fifteenth century—suggests some special use of the part of the aisle behind. Facing these, two arches now give on to the modern vestry and porch, but formerly to a south aisle, and the further two now look on to the chapel. The west jamb of the eastern of these two has been cut back, and the intrados of the arch cut away to meet it, leaving a scarcely noticeable break in the curve.

But things were not allowed to end here. The unpleasant darkness of the church inside must have suggested that a new source of light should be provided, so the old roof was taken down, the Saxon nave walls heightened another ten feet or so, forming a new clerestory rising above the north aisle roof, thus altering the whole character of the interior. As three of its south windows are covered over, as already described, this clerestory was probably erected before the Lady Chapel was built—perhaps at the same time as the aisles just referred to.

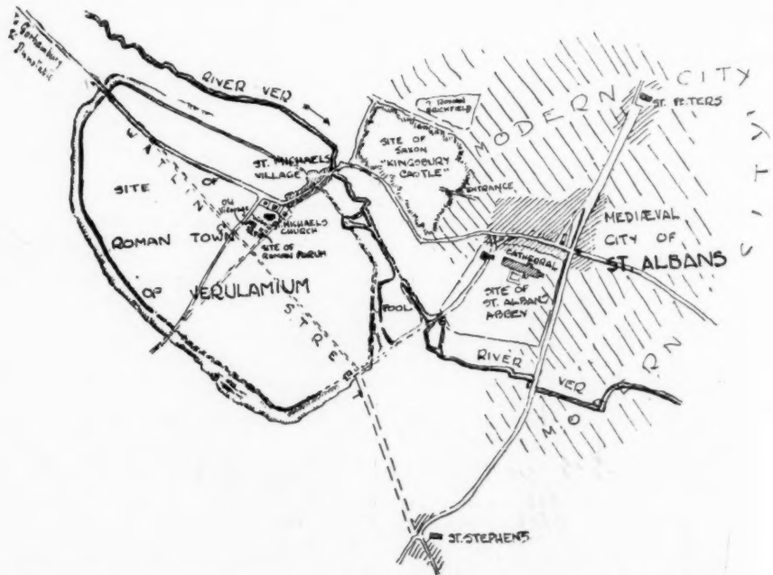
A broad Lady Chapel was next provided on the south, of great breadth, with a couple roof of its own. It was lighted at the east end and south side by the existing high, narrow, round-headed windows characteristic of the Transitional Norman period; the use of the curious circular opening in its west wall is not known, but was possibly a hagioscope, giving a view of the service in the chapel to observers in the porch. This Lady Chapel, then, is intermediate in style, but is placed at 1200–1210, *i.e.*, several decades after the normal date—which, if correct, gives us another instance of lingering traditions.

THE THIRTEENTH CENTURY.—In the thirteenth century the church was still inconveniently dim; and it was then, no doubt, that the clerestory openings were enlarged into the present widely-splayed lancet windows; meanwhile those which had been covered by the chapel were fashioned in the same style as the rest. Two of the archways beneath, too, were filled in with screen walls, in turn pierced to form pointed doorways to the chapel and the porch. Farther west, an old archway which probably formed the main entrance to the church was blocked in the thirteenth century, with Roman debris, on the addition of the aisle.

THE FOURTEENTH AND FIFTEENTH CENTURIES.—To the first half of the fourteenth century belong the east chancel wall, the chancel roof (reflected in the half-timber work of the east chancel gable), and the fine east window, with its reticulated tracery; to the fifteenth the font and the fine nave roof, of the depressed tie-beam type with its fine sculptured stone corbels; while to the end of this or the beginning of the sixteenth century may be ascribed the Late Perpendicular windows, with their flat heads, which were inserted in the aisle walls, and also some linenfold panelling worked up in the pews. The double-segmental curves of the chancel arch die into the plain faces of the jambs, which have been built out, and cut away slightly on the eastern sides, in modern times. The blocked door from the north-east corner of the Lady Chapel, which led to the rood-stair, and the interesting entrance-door with its wrought-iron fastenings (of the same date) should be noted.

THE RENAISSANCE PERIOD.—The church passed almost untouched into the less mystical and more mundane atmosphere of the Reformation; during this period the monumental tomb of Francis Bacon, and the fine pulpit, were the only notable additions. The former is not part of the structure of the church, and cannot be dealt with in detail here; its setting has a restrained Renaissance treatment, and the figure is represented in an attitude finely expressive of the tendency of the immortal philosopher of Elizabethan times. The pulpit is a fine specimen of carved woodwork of the Renaissance period, Jacobean in date, but preserving perhaps the tradition of Elizabethan design, with a typical treatment of sub-divided panels on its face, and resting on a solid tapering base. The hour-glass stand beside it still remains.

The fifteenth-century western tower was on the axial line of the nave, and, from the little we know of it, must have been of solid and impressive character (see old photograph in the "Victoria History of Hertfordshire"); its side walls were 8 or 9 ft. in thickness, and it is thought to have encased an earlier (probably Saxon) edifice.



Plan of St. Albans District, showing Roman, Saxon, Mediæval and Modern Sites.

It was ruthlessly destroyed, with scarcely a record behind it, by the late Lord Grimthorpe at the end of the nineteenth century, that the seating of the nave might be slightly increased! and the present tower, a crude "Mid-Victorian Revival" copy of thirteenth-century work, was built to the north of it.

Several features of an unusual kind and doubtful meaning are to be found about the church. At the south-east angle of the building, in the south chancel wall, is an opening about a foot square (whose arch-form shows it to be Late Perpendicular in date), the use of which is not exactly known. It is not visible inside, for its width is comprised in the thickness of the east wall; but a similar recess remains within, a few inches further to the west, and as the eastern wall cannot have been further east than at present, these two features must have formerly communicated, giving an unusually oblique "squint," through which the Elevation of the Host could be observed; such openings are sometimes for passers-by or for lepers, but in this case it was evidently for an "anchoress" or female recluse of whom the records speak, whose cell, if it ever existed, has disappeared. Tradition speaks here, however, of many walls.

In the same south wall, too, just east of the nave, is a recess (covered by a depressed arch with ogee finial), which evidently dates from the fifteenth or end of the fourteenth century; in it is irregularly laid a coffin which scarcely seems to belong to it. This forms the ordinary type of monumental tomb, but it is placed extremely low, and is most rare on the outside of a church; but if covered by the cell of the "anchoress," the tomb would be an ordinary internal one, like that in the south presbytery aisle of the cathedral. Again, a minute study of the stonework is the one real key to the solution of the problem. Closer to the nave, again, is a "low side window," perhaps also covered by the cell, or for passers-by without.

Several questions, therefore, both historical and technical, confront the student and await the attention of the curious with a view to their enlightenment. First, the question whether any part of the church as it now stands is actually Roman in date, and what purpose the building then served; also, what kind of plan it had in the days of Verulam's glory. The same inquiry applies to the original building running at an angle, whose fragments have been mentioned. Second, what was the original extent of the primitive foundation attributed to Wulsin? Third, it remains for us to collect what scattered notices and photographs we have of the old western tower, and reconstruct in our minds this hoary and memorable fabric, so summarily torn from us. Fourth, we would know in what order the clerestory and southern chapel were erected, that we may visualise each step in the gradual expansion of this consecrated building. Fifth, what bygone chambers may once have flanked the chancel north and south, and what holy

St. Michael's Church, St. Albans.

[Exterior of Chancel from S.E., showing "low side window" and mural tomb, once covered by the cell of the anchoress.]

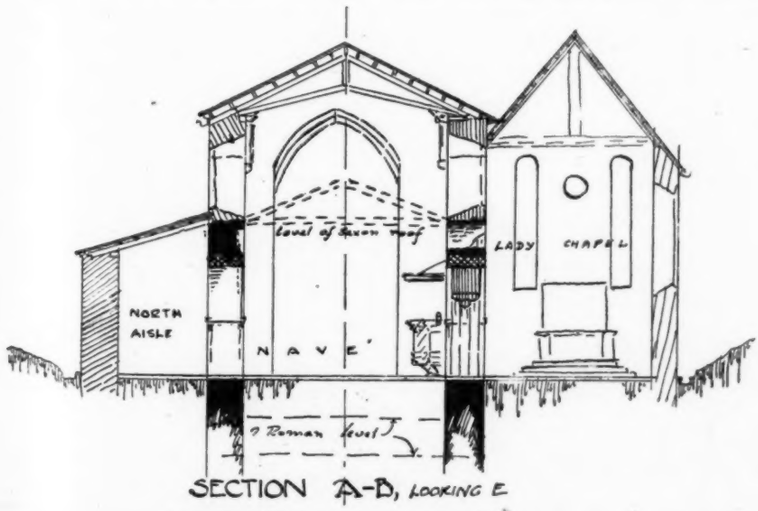
purpose may they have served? Let us hope that, in the love we feel for this venerable place, our understanding may ere long be deeper of the glories of its past.

In more modern times the story is a little saddening, for the church has not been dealt with in the sympathetic spirit its ancient character deserves. Sir Gilbert Scott carried out some necessary and legitimate restorations to the fabric of the church. The late Lord Grimthorpe's work, subsequent in date but retrogressive in feeling, includes the hard and angular chancel screen and the new porch and vestry to the south, as well as the western tower, which are all specimens of the crude, lifeless Gothic imitation which was, alas, far too commonly employed! Incidentally, garish painting on organ pipes is a feature destructive of the sweet and restful effect of many of the churches of our countryside.

The charm of this historic fane is æsthetic as well as historic—the flint, with its moss-grown pointing, being relieved by the decaying stonework of the windows, and by the rich and ruddy hues of the Roman bricks, more beautiful, even when first built, by their irregular shape, but now enhanced by age and by the contrasting green of the plant growth with which Nature has gently covered them. Beyond this, again, there is the most enduring quality of the church—its spiritual expression—the subtle note telling us sub-consciously of the long ages of reverend service which the old building has seen.

There is that about St. Michael's which, we feel, few other churches can give—an impression which, once sunk into one's feeling, is not to be readily forgotten. The very age of the church awes us when we look up at the silent walls, only a generation short of a whole thousand years, and realise that, furthermore, the tiles therein embedded carry us back yet another score of generations. Venerable, indeed, is this ancient monument, which has served unceasingly the varied wants of so many passing ages.

[The writer desires to acknowledge his indebtedness to Mr. C. H. Ashdown, Secretary of the St. Albans and Herts Archæological Society, and to the Victoria County History of Herts, for information on this subject.]



St. Michael's Church, St. Albans.

SARACENIC ARCHITECTURE.

Mr. M. S. Briggs, F.R.I.B.A., recently delivered a lecture before the Central Asian Society on "Saracenic Architecture," which was substantially the same as he had previously given before the Royal Institute of British Architects (*The Builder*, December 17, 1920). The Saracenic style, he said, was the product of the Moslem faith in a semi-tropical climate during the Middle Ages, and must not be judged according to its suitability for Christian worship, northern latitudes, and modern habits of life. It should be seen through Oriental eyes. It had an interest for the student of Gothic architecture in Europe, because some of the forms most familiar in Gothic buildings—notably the pointed arch—were attributed to the Saracens. In the long intercourse of Saracen and Crusader many things had changed hands.

In a brief discussion that followed the address, Major Ormsby-Gore said scholarship tended to prove that the earliest great Moslem monuments, such as the mosque at Samara, owed their origin to pre-Islamic Arab art. As to the inter-action of western and Saracenic architecture, the architecture of the island of Sicily was of great importance. In Sicily there was an extraordinary blend of Saracenic, Byzantine, and Norman styles in buildings that had survived from the eleventh century—the time of Sicily's Norman kings, Roger and Robert. It was argued that most of the churches in Palestine, such as the church of Saint Anne, just inside Saint Stephen's gate, at Jerusalem, had been built by Sicilian masons who had accompanied the Crusaders. Before the pointed arch was used in France and England, the Sicilian masons had got it from the Saracens in Sicily and had taken it back to Palestine: for the structural use of the pointed arch—which seemed to come from southern Persia and Mesopotamia about the time of the rise of Islam—had been carried west to Sicily in the seventh and eighth centuries. He believed earlier examples of stalactites were found in Sicily than in Cairo—possibly they were earlier still in Mesopotamia. On a Saracenic palace outside Palermo, dating from the end of the ninth or early part of the tenth century, there were stalactites, and on the Norman architecture of Sicily of the eleventh century stalactite vaulting was developed in the most splendid manner.

Sir Francis Younghusband, who presided, speaking of architecture among the Arabs as expressing the character of the people, said that the way a mosque, or tomb, or fine piece of domestic architecture was brought into being was as follows: The chief or other notable man who wished to have it erected got together his friends and others who were experts in building. Then many conclaves were held and the project was discussed in all its bearings. Many different views were expressed, but gradually the idea took shape. As the building rose everybody gave his opinion about it, though the chief, of course, had the principal say in the matter. As the result of all this there was in the building an expression of the character of the people.

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ILLUSTRATIONS.

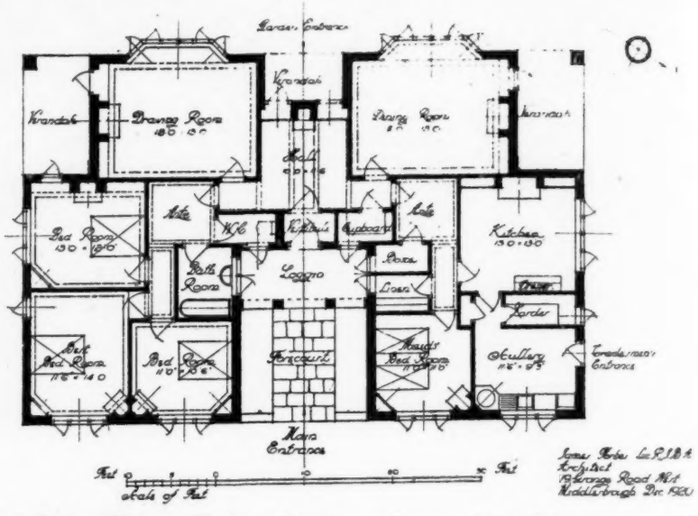
Club House, Beaconsfield Golf Club, Beaconsfield.

The illustration of this club house shows to what extent Lieut.-Col. W. B. Du Pre, M.P., has succeeded in erecting a building as a golf club house on his estate which should express its purpose and at the same time embody certain traditional features to be found in the neighbourhood. The work was entrusted to Mr. Stanley Hamp, of Messrs. Collcutt & Hamp.

On the ground floor is a large club room with a verandah facing the course. At either end, with direct approach from the course, are provided ladies' and gentlemen's dressing-rooms. An oak staircase leads to the dining-room on the first floor with opening on to a spacious balcony, from which delightful views of the course may be obtained. Leading out from the dining-room is a large smoking-room with open verandah, and also a card room.

The external brick facings have been carried out in 2-in. bricks, and the roof is covered with sand-faced, hand-made tiles. The half-timber work is of English oak. The ceiling of the verandah on the ground floor is constructed of oak beams with green slate slabs, which forms a centering for the concrete paving above, so designed to give the appearance of a green and grey coffered ceiling.

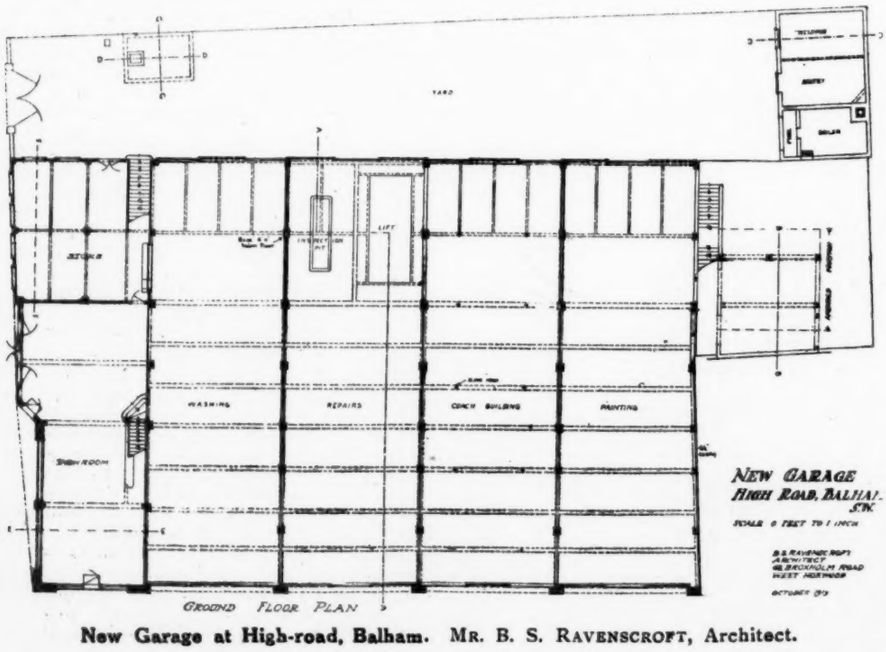
The building was erected by Messrs. Watson, of Ascot. The interior decorative plaster and chimney-pieces were carried out by Messrs. Shuffrey & Co. The wood carving was executed by Messrs. Martyn, of Cheltenham.



Bungalow at Marton, Yorks. MR. JAMES FORBES Lic.R.I.B.A., Architect.

New Garage and Workshop, Balham.

This building, for the United Service Transport Co., Ltd. (incorporating French's, Ltd.), is being erected for the accommodation of heavy transport vehicles and their maintenance, and also for the sale of cars and accessories. The ground floor comprises a showroom 60 ft. by 24 ft.; four bays, each 90 ft. by 30 ft., allocated for washing, repairs, coach-building, and painting; smith's and welding shop; and boiler house, store, &c. Staircases and a 4-ton lift on the electro-oil principle give access to the upper floor, comprising an engineers' shop 120 ft. by 60 ft.; manager's, secretary's, and clerks' offices; and mess room and lavatory accommodation for the operative and clerical staffs of both sexes. The premises are principally constructed of concrete; pavings are of granolithic, and the main elevations finished in a composition stucco imitation of Portland stone. The cost was £30,425 in January, 1920, plus subsequent advances in labour and material. The architect is Mr. B. S. Ravenscroft, of 62, Broxholm-road, S.E.; the quantity surveyor is Mr. G. M. Nicholson, of 95, Chancery-lane; and the general contractors are Messrs. J. Garrett & Son, of 83, Balham-hill, S.W. The concrete structure (reinforced on Indented Bar Co.'s system) and external facings are carried out by the general contractors. The sub-contractors are as follows:—Heating: G. N. Haden & Sons, Ltd.; lift: Waygood-Otis, Ltd.; steel principals: Aston Construction Co.; 5,000-gallon petrol tank and pump: Bowser & Co.; patent glazing: Heywood & Co.; electric wiring: Alpha Manufacturing Co.; steel casements: Crittall & Co., and Williams & Co. The building is roofed in, and is nearing completion.



GROUND FLOOR PLAN

New Garage at High-road, Balham. MR. B. S. RAVENSCROFT, Architect.

One Story Houses.

We illustrate this week some one-story houses and a bungalow designed by Mr. James Forbes, Lic.R.I.B.A.

MEETINGS.

FRIDAY, *March* 4.

Town-Planning Institute.—Mr. E. J. Chappell on "The S. Wales Regional Survey." At 92, Victoria-street, S.W.1. 6 p.m.

SATURDAY, *March* 5.

Architectural Association.—Visit to the Bank of England.

MONDAY, *March* 7.

Institute of Builders.—Annual Dinner. At Hotel Victoria, Charing Cross, W.C.2. 7 p.m.

Surveyors' Institution.—Mr. A. B. D. Lang on "The Report of the Select Committee of the House of Commons on Business Premises." At 12, Great George-street, S.W.1. 8 p.m.

TUESDAY, *March* 8.

L.C.C. Central School of Arts and Crafts.—Mr. C. Spooner on "Gardens." At Southampton-row, W.C.1. 5.30 p.m.

Royal Sanitary Institute.—Mr. E. Willis on "The Sanitary Engineering Side of Town-Planning." Mr. G. Pepler on "Town-Planning of Built-on Areas." At 90, Buckingham Palace-road, S.W.1. 5 p.m.

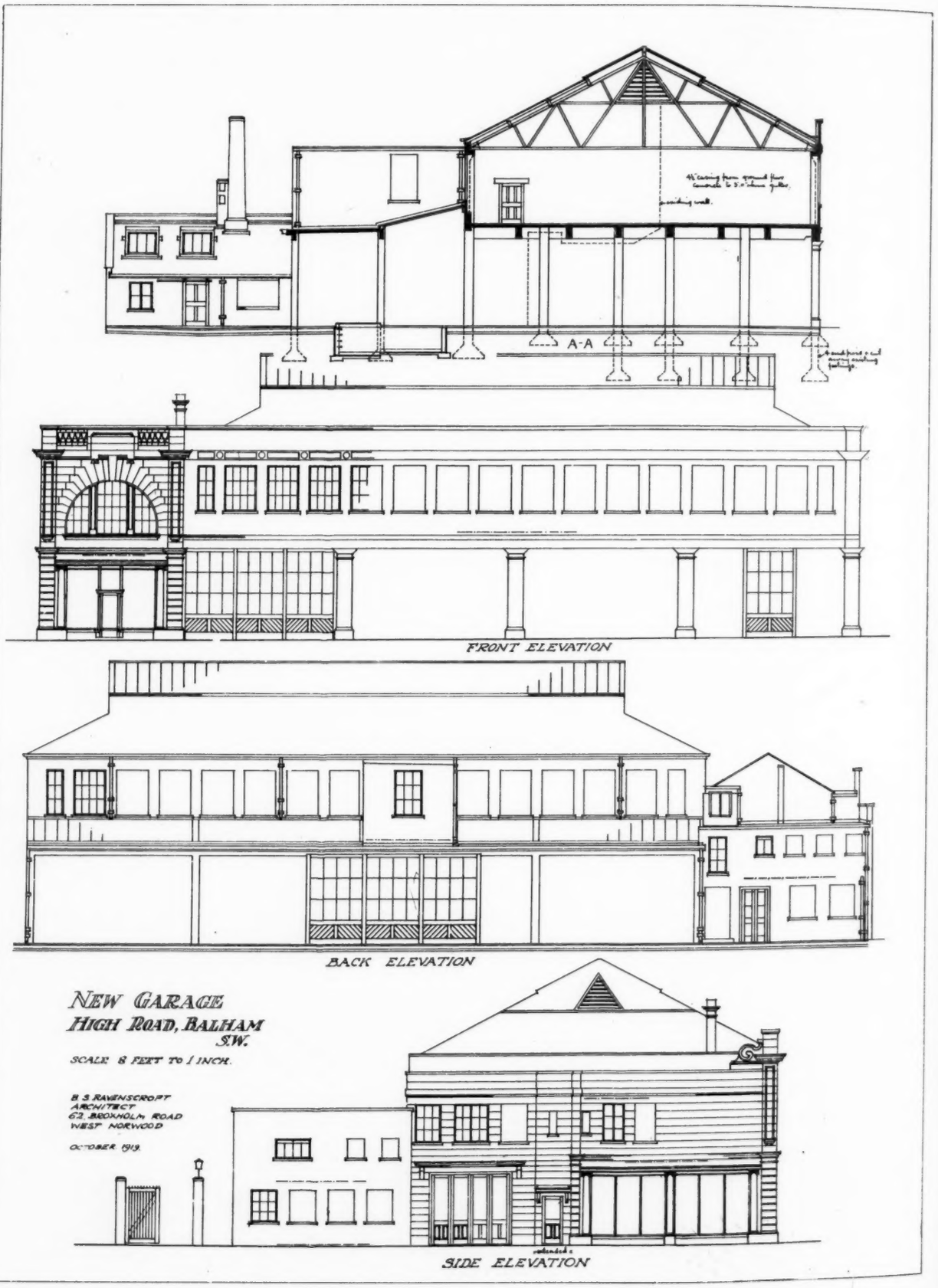
Liverpool Architectural Society.—Mr. J. H. Sellar, F.R.I.B.A., on "An Architect's Use of a Library." At 13, Harrington-street, Liverpool. 5.30 p.m.

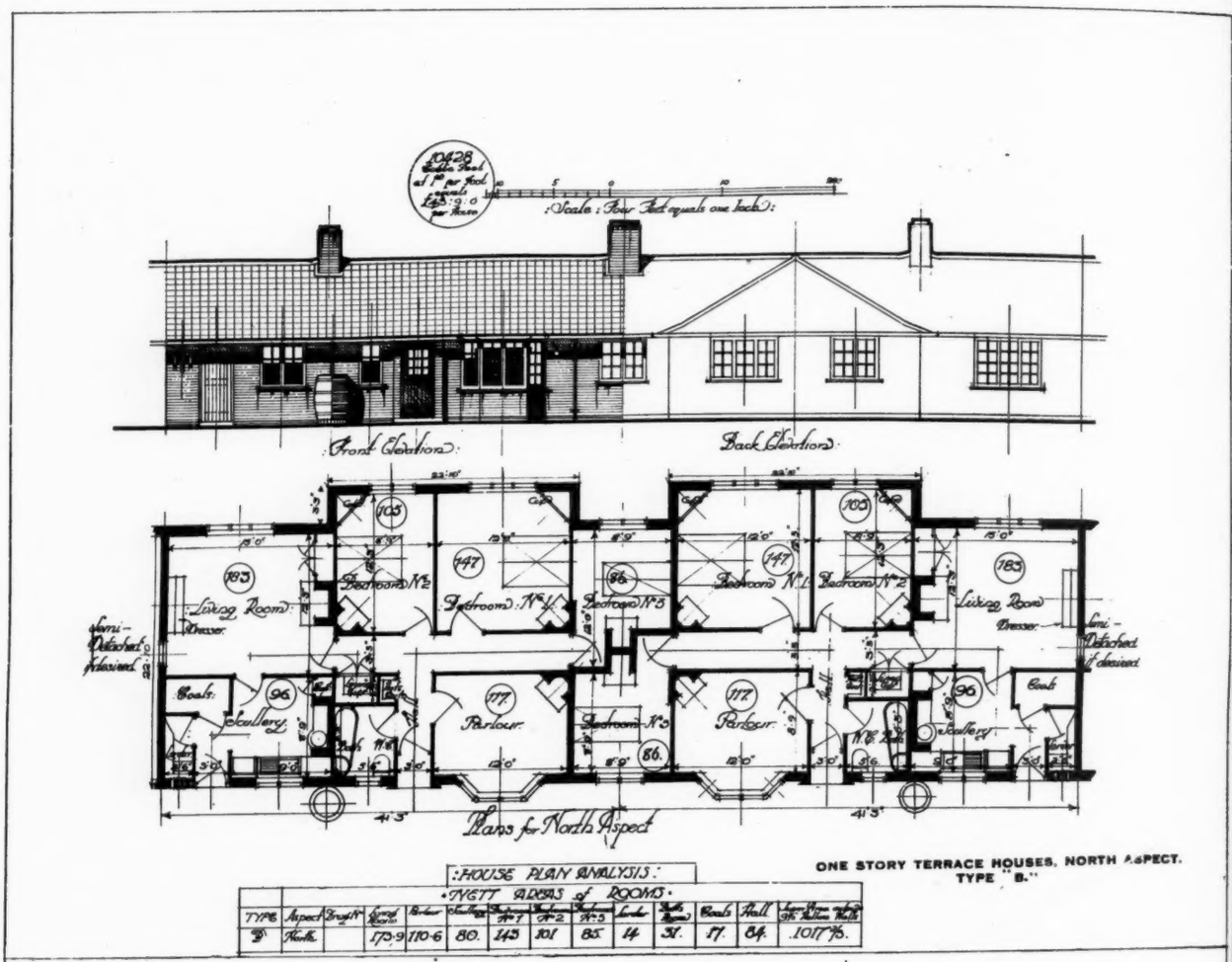
WEDNESDAY, *March* 9.

British Museum Lectures on Ancient Architecture.—Sir Banister Fletcher, F.R.I.B.A., on "Early Christian Basilican Churches outside Rome: Baptisteries: Tombs." 4.30 p.m.

Gothic Art.

The audiences at Dr. D'Arcy's lectures on "Christian Art" at King's College have grown so large that the lectures are to be moved next term from the Theatre to the Great Hall of the College. The first of the new course will be on May 2, at 5.30 p.m., and the subject will be "Gothic Art in the Second Half of the Thirteenth Century," including architecture, sculpture, and also painting before Giotto. The lectures are free, and no tickets are required.


A-A
FRONT ELEVATION
BACK ELEVATION
NEW GARAGE
HIGH ROAD, BALHAM
S.W.
SCALE 8 FEET TO 1 INCH.
B. S. RAVENSCROFT
ARCHITECT
62, BROCKHOLM ROAD
WEST NORWOOD
OCTOBER 1919.
SIDE ELEVATION

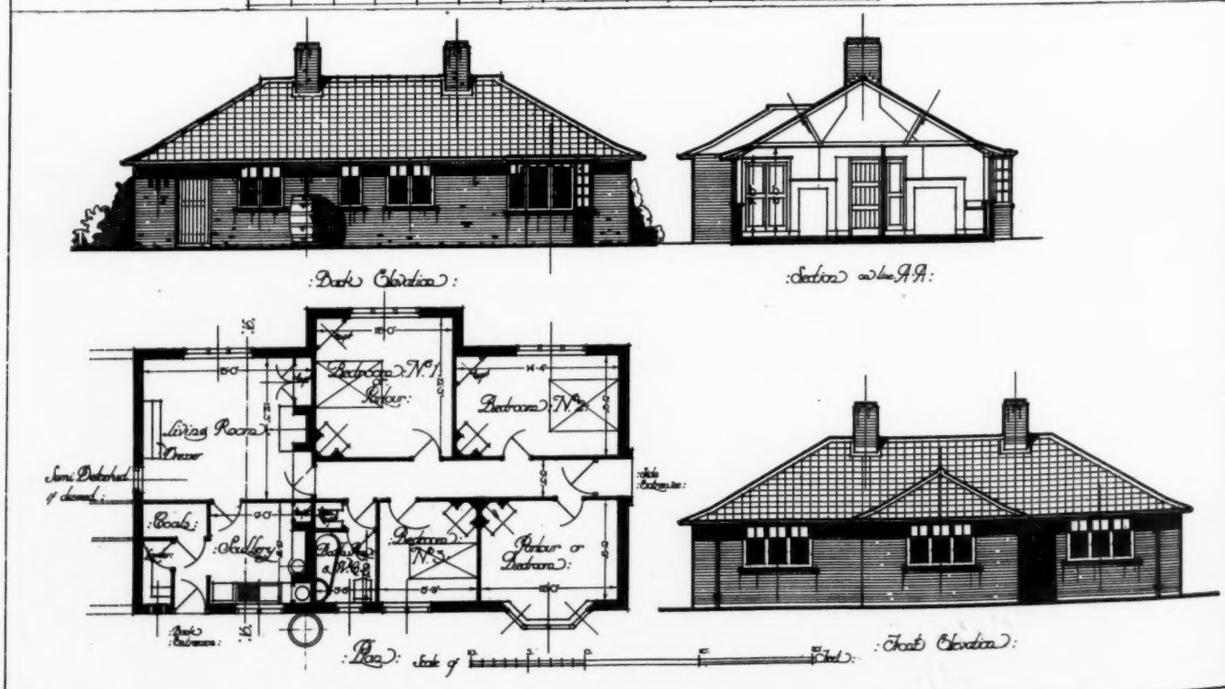


ONE STORY TERRACE HOUSES, NORTH ASPECT.
TYPE "B."

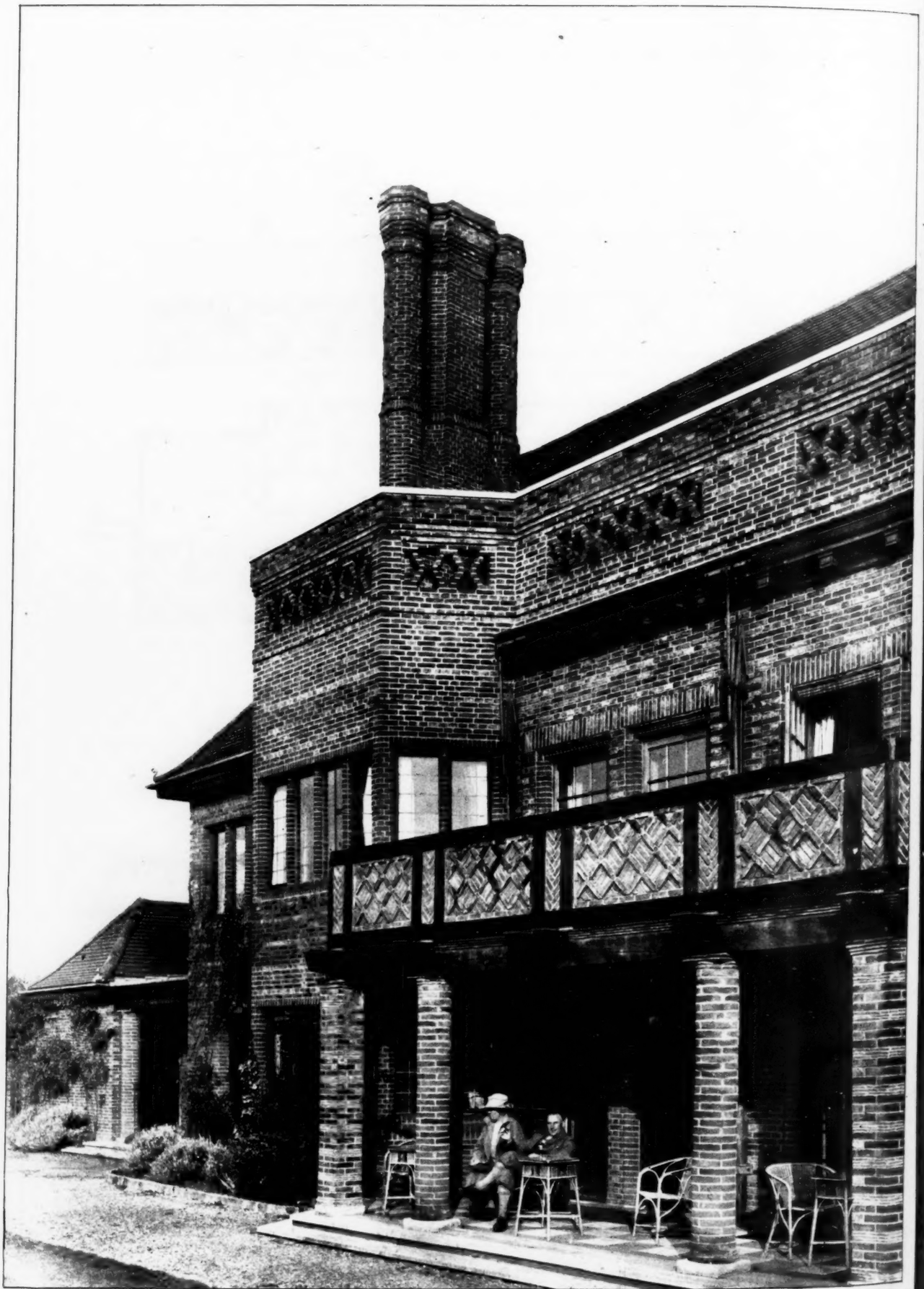
HOUSE PLAN ANALYSIS.

NETT AREAS of ROOMS.

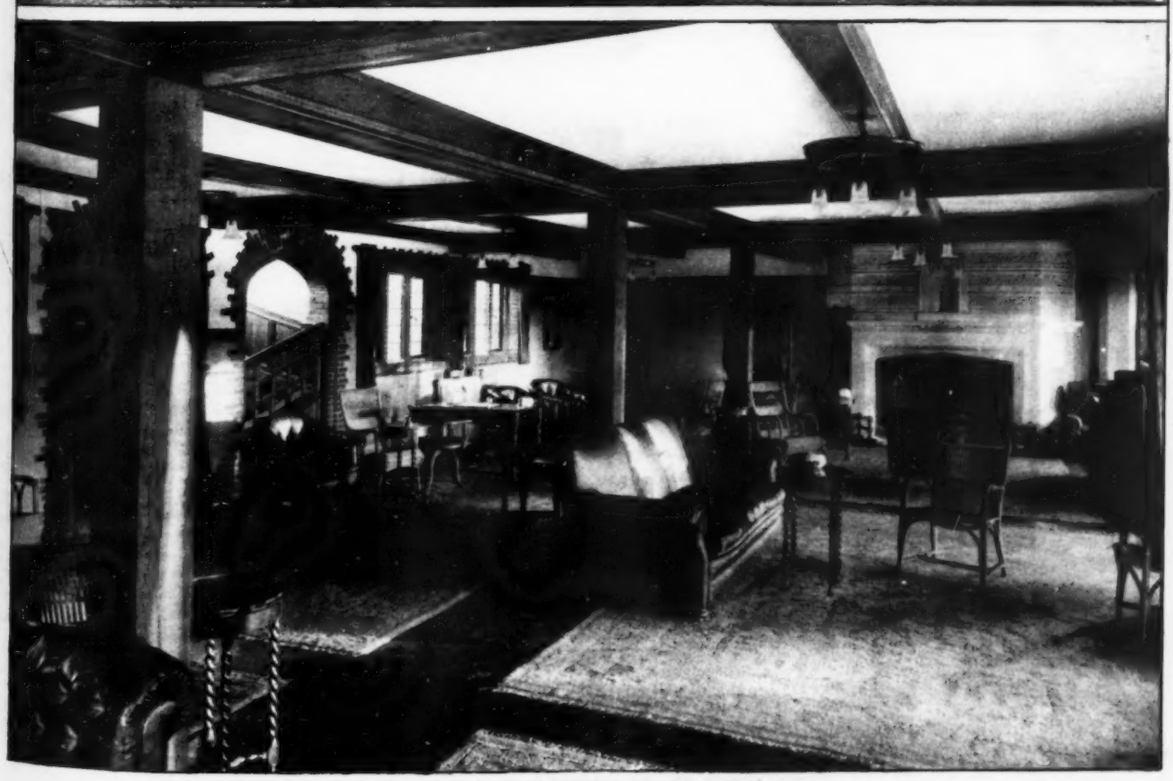
TYPE	Aspect	Drawing No.	Gross Area	Outside Walls	Chimney Breasts	No. 1	No. 2	No. 3	Larder	Store (Ground)	Roads	Hall	Superficial Area within Walls
B	North.		173·9	110·6	8·0	143	101	85	14	5·1	17	8·4	1017·5



TYPE "B."
ONE STORY DETACHED HOUSE.
MR. JAMES FORBES, LIC. R.I.B.A., ARCHITECT.

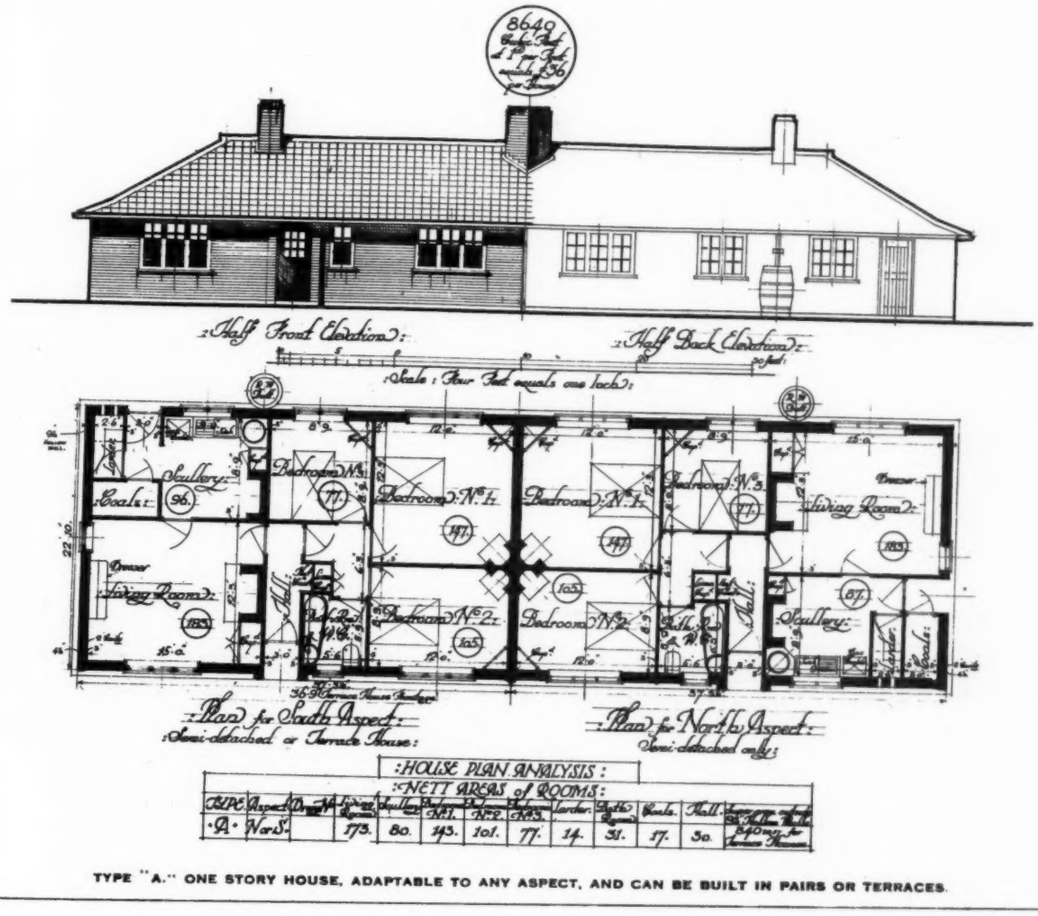


BEACONSFIELD GOLF CLUB. MR. STANLEY HAMP, A.R.I.B.A. (MESSRS. COLLCUTT & HAMP), ARCHITECT.



INTERIOR

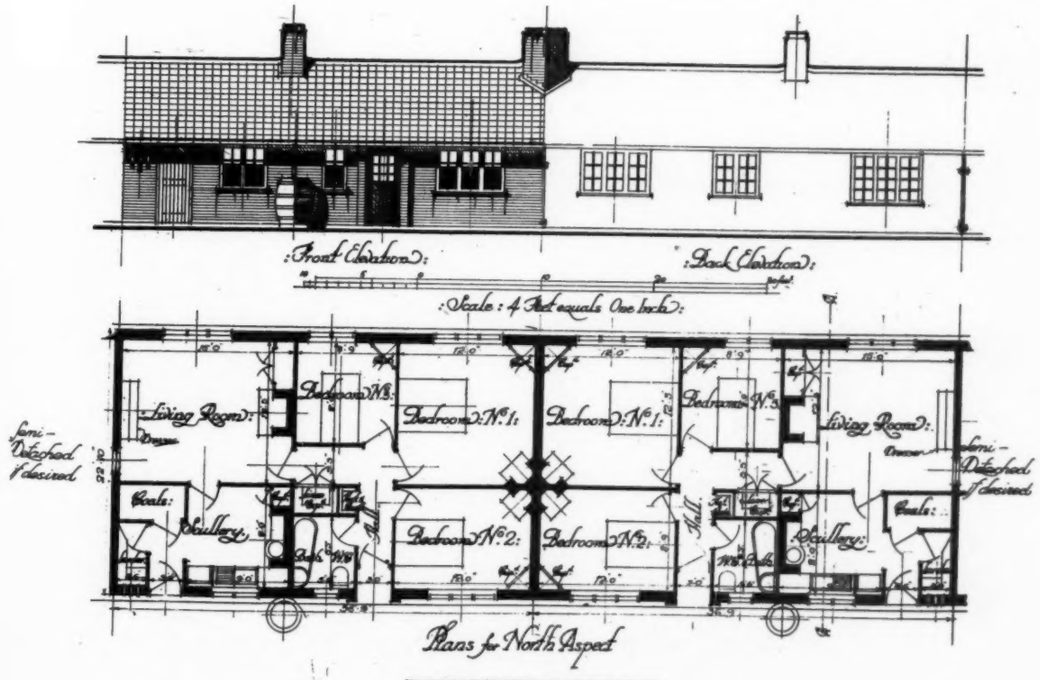
BEACONSFIELD GOLF CLUB. MR. STANLEY HAMP, A.R.I.B.A. (MESSRS. COLLCUTT & HAMP), ARCHITECT.



HOUSE PLAN ANALYSIS:
NETT AREAS of ROOMS:

TYPE	Aspect	Description	No.	Area in Square Feet	Scullery	Bedroom No. 1	Bedroom No. 2	Bedroom No. 3	Larder	Cupboards	Coals	Hall	Area of Hall and Passage
A	North			773	80	143	101	77	14	31	17	30	840 sq. ft. for Scullery, Hall and Passage

TYPE "A." ONE STORY HOUSE, ADAPTABLE TO ANY ASPECT, AND CAN BE BUILT IN PAIRS OR TERRACES.



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NETT AREAS of ROOMS.

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A	North			773.9	80.	143.	101.	76.	14.	31.	17.	30.	840.

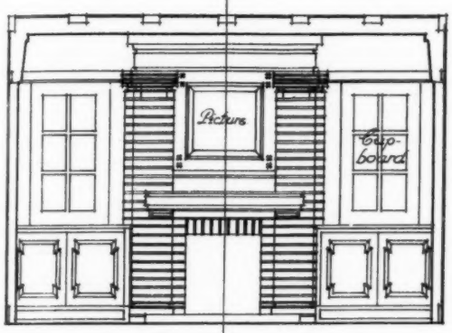
TYPE "A." ONE STORY TERRACE HOUSES, NORTH ASPECT.

MR. JAMES FORBES, LIC. R.I.B.A., ARCHITECT.

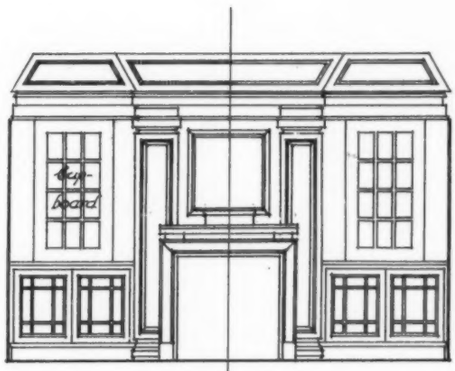
(B)

PROPOSED BUNGALOW AT MARTON FOR J. FORBES ESQRE

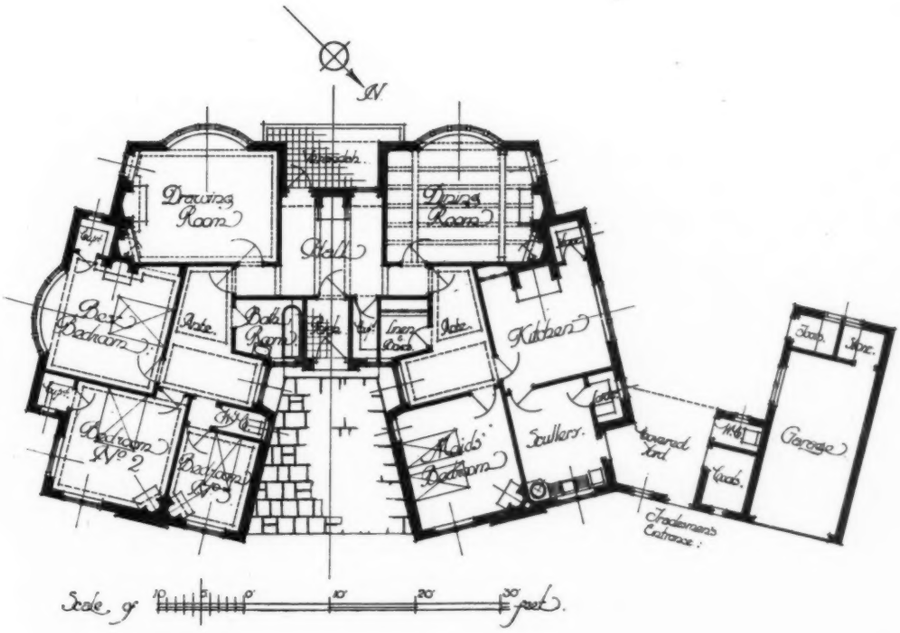
Scale of Feet.



Dining Room Fireplace



Drawing Room Fireplace.



Scale of Feet

: GROUND FLOOR PLAN :

Drawing No.

PROPOSED BUNGALOW, MARTON, YORKS. MR. JAMES FORBES, LIC. R.I.B.A., ARCHITECT.

MODERNISM AND DESIGN—III.

THE WORKMANSHIP BASIS.

BY W R. LETHABY.

In my last chapter I tried to deal with the data for design furnished by the materials used; this time I wish to consider workmanship as an essential factor in "architecture" (I have to print the word so for it means so many things; sometimes indeed I have contemplated " " " architecture " " "). The workmanship element is of an importance hardly second to that of the materials. Indeed, a reasonable definition of "design" would be:—Deciding how materials shall be used and workmanship done. If in this little paper I speak regretfully of the types of workmanship which existed in the past, this is not my main purpose, which is to bring out the fact that "design" must be seen in terms of the workmanship obtainable. In a word, routine workmanship calls for a type of design which I may call scientific.

To-day a carpenter has been breaking a dormer through the roof of the house opposite, and the pleasant thuds of his hammer, intermixed with whistling, have reminded me of the craft glories of the past and of Morris's saying that a work of architecture was made up of millions of hammer strokes. Ancient architecture was for the greater part the co-ordination of fine workmanships into a drama of the crafts. There were exceptional works like the Pyramids, the walls of Babylon, and some Roman constructions which depended rather on rude forms of labour driven on by military imperialism and gangers with whips. One of the (perhaps the most) foundational questions of modern civilisation is this of the type of work we aim at getting, and what kind of organization "labour" will agree to serve under. I can only state the problem from the point of view of building "style," for this indeed is the real problem of architectural orders. Shortly it is this: modern building must be the outcome of intelligent and interesting labour or of crude and loathing labour. During the last century or two, and especially during the last generation or two, a state of things has come about in which the workman has no say in regard to his workmanship; the architect indeed, by the best "etiquette of the profession," should now hardly recognise his existence. As Ruskin has said, "the employer orders the architect, to order the clerk-of-works, to order the builder, to order the foreman, to order the workmen." I am only speaking of this as showing how the work interest, once the very well-spring of building beauty, has run dry. I do not see how, at this time, with our type of organisation, it can be much different, but I do see that it is necessary to realise the facts and to design accordingly.

Material and workmanship have been everything in the arts. Consider that no one ever "designed" the letters we use in writing; they shaped themselves under the writing instrument rapidly used by a scribe. Pottery was formed under the thrower's thumb; glass by the skill of the blower. Think again, to take a quite modern instance, of the transformation of types brought about by the veneering of furniture, and how moulding and carving disappeared by the logic of workmanship dealing with material. Talk at this level is doubtless low; what, I may be asked, of the designing genius of Phidias and Michael Angelo? Well, were they, too, not workmen? I can assure anyone that there was no free exercise of genius by Phidias; in his day temple statues were as much a matter of course as railway trucks are in ours. Even in the detailed design of his statues (I have been looking into that) the poses were arranged and the limbs adjusted to cut economically from the precious blocks of material. Genius was cheap but marble was very dear. It is actually on record that it was the same with M. Angelo: it was his supreme gift to see how he could get a statue out of a block without cutting to waste. In "art" thus approached through material and workmanship there is solidity and depth, and this has a human value which art produced on "an ideal basis" can never have. Even mechanical reality is better than mechanical pretence of the spontaneous and "artistic." This is where the present need for plainness comes in: not that bareness is a good in itself, but that it is good under the circumstances. I spoke of railway trucks above and they may serve as an example of how plain reality does confer a dignity all unintended. Mr. Bone would make a drawing of a row of railway trucks fit for a gallery, but I doubt if he could make such a drawing of —— and ——. Of my examples I should be told that "no one likes them now," to which my reply is, Just so! that is what I am trying to point out, we do not after about five years. I am not wishing to be ironical or pessimistic. I am simply wishing to see and show the truth.

That it should ever seem necessary to bring forward arguments as to what is sometimes called "the influence of materials and workmanship on architecture" is symptomatic of the vague and remote significance which is given to the blessed words, "Design" and "Architecture." Material and workmanship are the essential precedents to design. Obviously stone and brick and men and tools do more than "influence" walls, they make walls. Of course tiles have influenced roofs and glass has influenced windows, and this should go without the saying. We do not need to make long arguments on how the ball and bat have influenced cricket or to prove that turf, flowers, earth and digging must be taken into account in gardening. The idea of genius-design obtruding itself between us and direct common building has injured the whole business. The triumphs of building and other arts in the past came of directness and reality in the use of materials by intelligent workmanship. I wish I could stay to give some account of the British workmen of the past who made our national architecture—of Henry of Reyns, the master mason at Westminster, of Hugh Herland, the master carpenter, who contrived the great roof over Westminster Hall, and others, but it would be put aside as mediæval. It is less understood that Wren depended on workmen of a somewhat similar type. What they still were in his day is well brought out by Evelyn's story of the master ship carpenter, Old Shish:—

"1668, 3 Mar. Was launch'd at Deptford that goodly vessel the *Charles*. I was neere his Majesty. She is longer than the *Soveraine*, and carries 110 brass cannon; she was built by old Shish, a plaine, honest carpenter, master builder of this dock, but one who can give very little account of his art by discourse, and is hardly capable of reading, yet of greate ability in his calling. The family have been ship carpenters in this yard above 100 yeares.

"1680, 13 April. I was at the funeral of old Mr. Shish, master shipwright of his Majesty's Yard here, an honest and remarkable man, and his death a public losse, for his excellente successe in building ships (tho' altogether illiterate) and for breeding up so many of his children to be able artists. I held up the pall with three knights who did him that honour, and he was worthy of it. It was the costome of this good man to rise in the night and pray kneeling in his own coffin, which he had lying by him many yeares. He was borne in that famous yeare of the Gunpowder plot 1605.

"1683, 17 April. I was at the launching of the last of the 30 ships ordered to be new built by Act of Parliament, named the *Neptune*, a second-rate, one of the goodliest vessels of the whole navy built by my kind neighbour, young Mr. Shish, his Majesty's master shipwright of this dock."

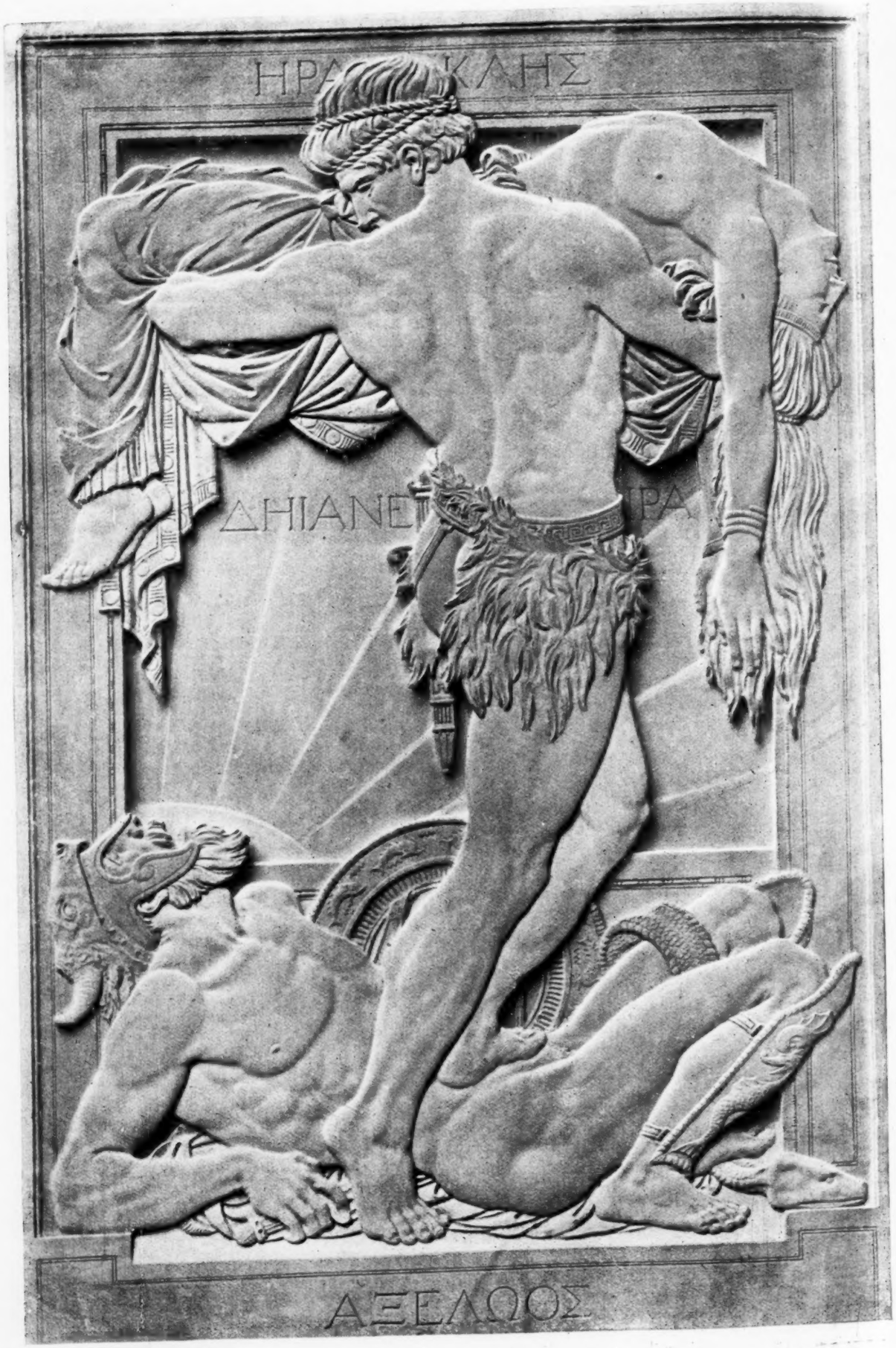
Now that stirs one's heart, and nothing about "design," which must have been thrown in with the knowledge of work: note, too, the reasonable use of the words art and artists.

So much for the base in workmanship. I, too, know "we cannot go back," and I am trying to recognise the fact so that we may go forward and design according to the data of to-day. To do this we have to distinguish between the general mass of work which must be executed "mechanically" and some residue which might yet be saved for individual souls to care for.

I do not write for argument's sake, nor do I believe that our ideas and customs can be quickly changed; moreover, we are all borne on in one stream. What I am interested in is in finding a statement of building theory of universal application, and in trying to think out what we might hope for in, say, two centuries. By 2000 A.D. even I should like greater understanding that architecture is labour rather than paper.

. . . . .

I must thank your correspondents for having taken my hasty little diagrams just as they were meant—scribbles illustrating a letter—it would have been so easy to scoff at them.



Prix de Rome Competition in Sculpture.

Relief by Mr. Rayner Hoff. (*See p.* 287.)

WORK SUBMITTED FOR THE ROME SCHOLARSHIP IN SCULPTURE.

This exhibition, as a whole, is not inspiring. Amongst several works of an average standard there is much mediocre modelling and paucity of idea, besides a few that are altogether below the level required by an important competition. Our sculptor students do not seem to have availed themselves of the opportunity for study afforded by the Rome scholarships as have the architects. The painting, as a whole, is below the level of the sculpture, but that is another story.

Of the eleven candidates, four have been selected for the final competition, and, taking these in the order in which they appear in the catalogue, the work of Miss Arnrid B. Johnston, of the Slade School, comes first under notice. We cannot quite realise why this student has been chosen. With the possible exception of the figure, which is by no means brilliant, her work is very mediocre. Her drawing shows a certain amount of painstaking study, but is very uninteresting, and her relief entirely lacking in composition or attraction. The subject chosen is a group of horses among trees, but the treatment lacks balance and point of interest; the modelling is tame and without any interesting qualities. The figure is well proportioned, and, in its way, perhaps not unattractive, but we think several rejected students showed work which, taken as a whole, is above this level.

Mr. Charles Dyson Smith (Royal College of Art) does not seem very much at home in drawing from life. His female figure has rather the "pudding" effect which creeps into the studies of certain female figures as rendered by the inexperienced. The male figure is more vigorous. Considerable care is shown in the studies of hands and feet. The relief shows no particular effort at composition, but is not uninteresting. The figures have somewhat rounded surfaces, which, if carried further by experience or increasing ability, may lead to good work. The type of modelling is faintly reminiscent of the work of Mr. Sargent Jagger without his facile, vigorous handling. The attitude of the standing figure is unfortunate, especially from some of the three-quarter and side views. This may be the fault of the pose of the model rather than of the artist, but detracts badly from the final effect.

Mr. David Evans (Royal College of Art) shows the best all-round work. In his case the relief and the figure in the round are in advance of the knowledge and technique displayed in drawing from the life. The composition of the relief is good, the figures are well-balanced, interest is well maintained, and considerable richness is obtained by the use of restrained ornament in the armour, trappings, clothing, and other portions of the figures and the details of the subject. The handling of the relief generally is vigorous and decorative. The standing figure has a good head and torso, and is well-balanced from all points of view. Photographs of other works of this artist which are exhibited show a sound level of workmanship.

Mr. Charles T. Wheeler (Royal College of Art) shows drawings which are above the general level, particularly his study of drapery. His relief is very confused in treatment, and the technique is suggestive of the work of Flaxman and the early nineteenth century. The figure in the round has a similar character, and is somewhat lacking in the live interest demanded by modern thought and opinion. Photographs of executed work show several groups of considerable attainment.

Of the unsuccessful competitors, Mr. James Gardner has a good standing figure. Mr. Arnold Haigh Sharp has a decorative relief, well executed but spoilt by the size of the dead lion, which overpowers the remainder of the composition. Mr. Rayner Hoff was unfortunate in not winning a place—his life drawings are good, his relief well executed and interesting, but his figure in the round rather lacking in interest and weak in composition.

THE ARCHITECTURAL BODIES AND THE BUILDING EXHIBITION.

A feature of the Building Exhibition at Olympia last year was the innovation introduced by the Society of Architects in organising the Architects' Welcome Club, and a number of conferences and social functions, all tending to bring those concerned into closer relationship in matters of common interest. The Society is being joined this year by the Royal Institute of British Architects and the Architectural Association in the organisation of a similar programme.

The Princes' Rooms at Olympia will be equipped as before as an Architects' Club for use during the period of the Exhibition, from April 12 to 26, and there will be exhibitions of architectural photographs and drawings from the leading architectural schools and ateliers, and kinematograph demonstrations of the work of the architect in carrying to completion with the aid of the contractor the buildings the architect has conceived and designed. There will also be lectures by experts on subjects of public interest, with special reference to the provision of homes for the people. These demonstrations and lectures will be free to the public visiting the Exhibition—one of the objects being to enable the uninitiated to gain a better idea of what is involved in the training of an architect and what he stands for in the national scheme of public service.

On April 22, there will be a public dinner in the Pillar Hall, Olympia, organised by the three architectural bodies, when representatives of the Government, kindred institutions, foreign architects, and of the building industry will be the guests of the Club.

Through the generosity of the Director of the Exhibition, the use of a special admission ticket by members of architectural societies will ensure a contribution by the Director to the funds of the Architects' Benevolent Society, so that these architects will not only derive personal pleasure and profit by visiting the Exhibition, but will be the means of adding without expense or obligation to themselves to a fund which, at the present juncture, is greatly in need of support.

An official programme will be issued in due course, and in the meantime any communications in regard to the Architects' Welcome Club programme should be addressed to the Secretary of the Royal Institute of British Architects, 9, Conduit-street, W. 1; the Secretary of the Society of Architects, 28, Bedford-square, W.C. 1; or the Secretary of the Architectural Association, 34-35, Bedford-square, W.C. 1.

OBITUARY.

Mr. W. Edmund Sedding.

We regret to record the death of Mr. Edmund W. Sedding, who passed away in London on February 21.

In 1884 the deceased gained the First R.A. Medal for measured work, and in the following year the R.I.B.A. First Medal for measured drawings. Four of the best measured drawings, namely, those of the steeples of Grantham and St. Magnus, London Bridge, are hung on the walls of the black-and-white room, South Kensington Museum. In 1886 he took the English Travelling Studentship for design at the Royal Academy, and in the following year was awarded a Special Pugin Medal for sketches. He was articled to John D Sedding, the well-known ecclesiastical architect, upon whose death in 1891 deceased set up an office in Plymouth.

He restored the churches of St. Keverne, St. Mawyan-in-Meneage, St. Blazey, Markam Church, Lansallos, St. Ives (partial), St. Erme, Falmouth Parish Church, Morvah, Tremaine, Chacewater (reconstruction), Lanteglos-by-Fowey, and St. Crantock (the two later schemes were completed). He carried out large additions to the Home of the Epiphany at Truro, and later the chapel was carried out from his design. In 1907-8 Lis Escop was enlarged and the chapel added, during the episcopacy of Bishop Stubbs, for whom he also designed the Diocesan Staff. The crook and figures were executed by George Sedding (killed in the war). At St. German's Priory Church he designed the east window and the west door. He also designed additions for Ladock Church, and repaired the towers of St. Gennys, Cardynham, and Fowey. His design for the new Training College Chapel was carried out about the same time. Mr. Sedding was responsible for the rebuilding of "Hengar," the seat of Sir William Onslow, after fire, and he also restored the old Cornish screens at St. Madron, St. Minnow, St. Budock, and the coloured sixteenth-century screen at St. Buryan. He designed new screens for the churches of St. Mary Magdalene, Launceston, Fowey, Stratton, St. Crantock, and St. Erth. In the latter church the south chancel aisle was elaborately fitted up with a reredos, altar, roof, screens, and carved benches. In one bench end a portrait of Bishop Stubbs with mitre and staff is depicted in high relief.

In Devon, Mr. Sedding restored the churches of Broadhamston, Marwood, Dartmouth, Sparkwell, Princetown, and Kingston, the reredos at Ermington, and the screen work at St. Mary Tavy and Shaldon. His design for the church of St. Mary Highweek was placed first in competition, and it was built at a cost of about £10,000. In 1910 the drawing was hung in the Royal Academy.

In Somerset he made complete restorations at Mark, Weare, and Pawlett churches. In Norfolk he partially restored the churches of Haddiscoe and Wheatacres: in Suffolk the church of Great Bricet; in Essex the parish churches of Rayleigh and Powers Gifford.

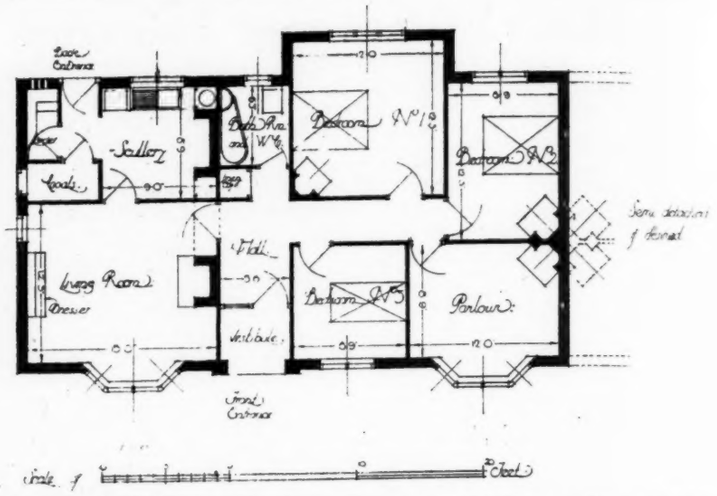
In 1906 Mr. Sedding's design was selected for the proposed new cathedral at Dunedin. The original design has, however, been entirely altered, and the nave has already been erected. Different kinds of Oamru stone have been used for the nave and vestries, and all other materials have been utilised from the Colony. The cost of the nave was about £30,000. We shall illustrate the work next week.

In 1911, owing to failing eyesight, Mr. Sedding took into partnership Mr. Reginald Wheatly, A.R.I.B.A.; and, on the resignation of the latter in 1914, Mr. Basil Stallybrass, who carries on his practice in Plymouth.

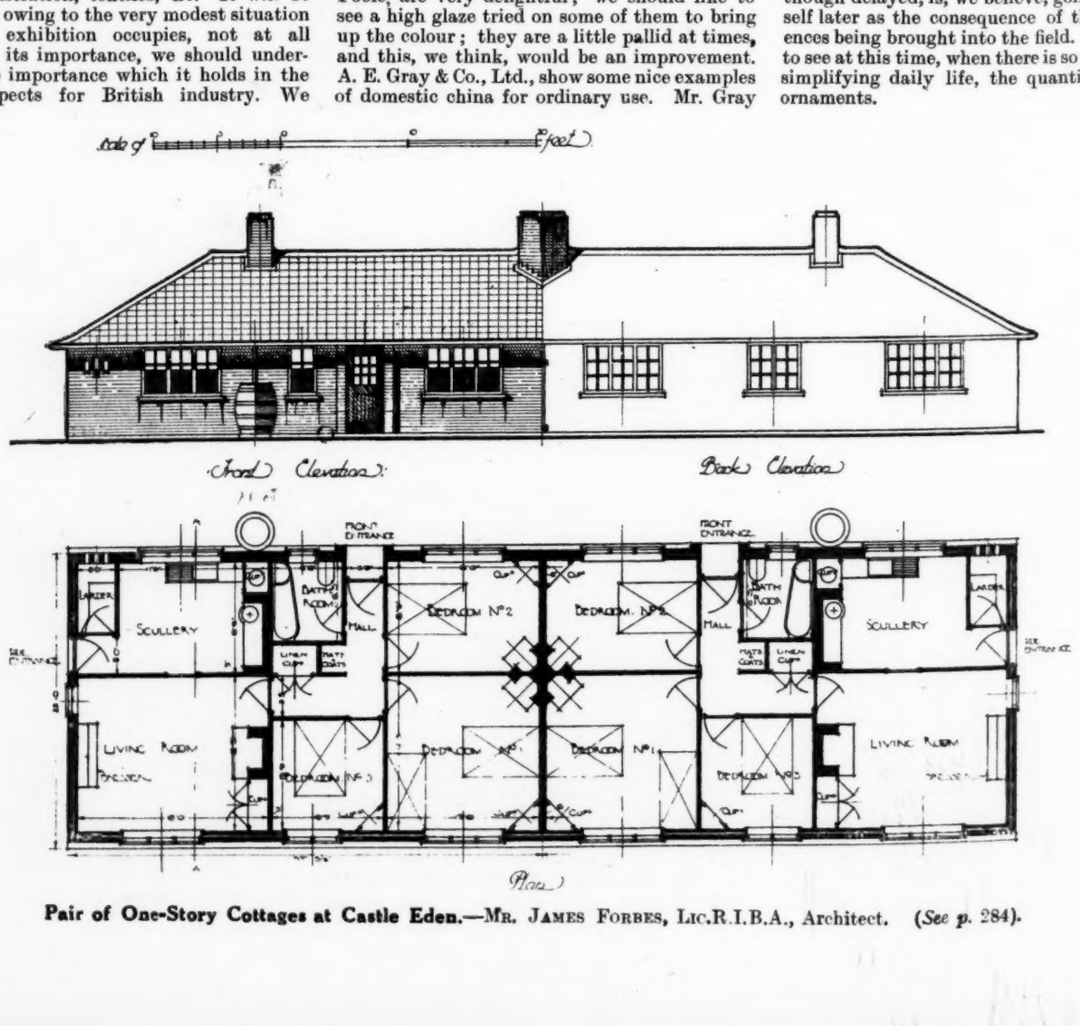
Mr. Sedding was working on a book which was just nearing completion—"Gothic Architecture in Cornwall"—almost up to the last week or two of his death. It is to be published in due course. Some of his recent literary work has also appeared in our columns.

BRITISH INDUSTRIES FAIR.

IF Thomas Carlyle had seen the vast display of British industrial enterprise at the British Industries Fair at the White City, he would no doubt have said that it awakened in him "bottomless" thoughts. The optimism which sees in the extension of the volume of trade, in the capture of new markets, in the exploiting of native races, the purpose and end of industry will find in this accumulation much to be applauded. And it would be less than fair if we failed to recognise the technical excellence shown in much of the pottery and glass exhibited. All the same, this "divine" right of trade suggests inquiry into the kind of standard we are introducing and developing in the world market, and of the kind of standard we ought to introduce. The aim of expansion for British trade requires to be carried on alongside of the determination to improve the standard of work and design. Otherwise, what is the object of it all? Behind all appearances lies the condition of its manufacture, and according as it ameliorates and makes for the bettering of human life and conditions will it contribute to the welfare of the world. Otherwise, though we should capture all the markets, we shall but have increased the divisions and unhappiness of the world. In the light of this, how important would appear the little leaven which, exercising its influence over the mass of "unconverted" commercial production could establish this ideal for manufactures. Do we not find the nucleus of this in this first exhibition at the British Industries Fair, of the British Institute of Industrial Art? It is a high-sounding title for that which is but a baby at the present time, but one which with sound principles and proper nourishment, through the entrance of further good work to make it properly representative, should be the means of penetrating our manufactures with better craft standards. The exhibition on this occasion is but the promise of what it should become in course of time, though there is work of high excellence shown in the departments of printing, illustration, textiles, &c. It will be a mistake if, owing to the very modest situation which this exhibition occupies, not at all adequate to its importance, we should underestimate the importance which it holds in the future prospects for British industry. We must not fail to do justice to the evidence of great enterprise on the part of some of the pottery firms to do good work. The difficulty lies in their being too much tied up by their own excellence. The very extent of the perfection reached too mechanically renders it all the more difficult to disentangle themselves from their own efforts. We feel this in looking at the interesting exhibit of the "Royal Worcester" pottery, and it appears in many other cases. There is to be felt as a very general lack the want of good colour. That terribly prevailing pink and mauve haunts many of the exhibits. The "Booth" china shows a high standard of excellence, though often needing better application. The Upchurch pottery and the "Dicker" pottery both show nice, simple hand-thrown shapes. It is encouraging to see a tendency in some well advised cases to return to the more traditional shapes in which fitness for use is the primary condition. The pots by Carter, of Poole, are very delightful; we should like to see a high glaze tried on some of them to bring up the colour; they are a little pallid at times, and this, we think, would be an improvement. A. E. Gray & Co., Ltd., show some nice examples of domestic china for ordinary use. Mr. Gray has been a pioneer in this direction and his influence, exercised always in the direction of providing the best things, has been very salutary. The Ceramic Society do not show this year, but their good work in the Potteries is one of the recognised forces towards improved standard of production. Looking round on the china and pottery shown, we feel a primary lack to be in its terribly perfect and featureless surfaces, as though there was no human life behind it, but we hope that the many influences contributing to a better state of things, the reaching of common ground between the artist and the manufacturer, will lead to more mutual co-operation on equal terms. The old exclusiveness is breaking down in the desire for the common welfare of industry. We have no space to deal comprehensively with the great variety of industries represented, but it is not possible to see much progress as yet in ordinary commercial works towards a higher standard, which, though delayed, is, we believe, going to show itself later as the consequence of the new influences being brought into the field. We are sorry to see at this time, when there is so much need of simplifying daily life, the quantity of useless ornaments.



One-Story Detached House.—MR. JAMES FORBES, LIC.R.I.B.A., Architect. (*See p.* 284).



Pair of One-Story Cottages at Castle Eden.—MR. JAMES FORBES, LIC.R.I.B.A., Architect. (*See p.* 284).

ARCHITECTURAL SOCIETIES.

NORTHERN ARCHITECTURAL ASSOCIATION.

The Possibilities of Brickwork.

At a meeting of the Northern Architectural Association, held at Newcastle-on-Tyne on February 23, Mr. Nathaniel Lloyd, O.B.E., delivered a lecture on "The Possibilities of Brickwork."

After referring to the use of brickwork by the Romans and Egyptians, he said some years ago large quantities of moulded brick and terra-cotta were used by builders as strings, copings, cornices, finials, and panels, and he believed the free use of that material had the effect of prejudicing the use of the right kind of brickwork, so that it went out of fashion. He would rejoice to see a revival of the right use of brick mouldings, &c. It was important to avoid excessive projections, to use mouldings as sparingly as if stone were the medium, and to exercise great caution in employing ornamental details. Perhaps too great or insufficient projection were the commonest stumbling-blocks. In ordinary three-story buildings were examples where it was right to provide 4-in. projection to pilasters, but many needed only 2-in. projections. Raised panels might be raised 2-in., but more frequently 1 in.; dritting to blocks at quoins should seldom be more than 1 in.; apron pieces should be 1-in. or less, depending on the scale of the building. Projections of 1½ ins. on each course in corbelling was about the limit, and often much less would be necessary.

A wealth of variety of colour was available. It was important to choose bricks having texture, and, as bricklayers were in the habit of laying the smoothest side of each brick outwards, they might as easily expose that having the best texture. There would be no more delay in doing one rather than the other.

At the present time, when bricklayers were limiting their output, it was found here and there that concrete blocks (made and handled, largely, by unskilled labour) had slightly reduced building costs. Bricklayers might easily lay four times the number of bricks they now laid daily, and if they did so brick would once more be found the cheapest of all building materials, and no more would be heard of concrete blocks. Not only could no building material compete with brick, but there was none that could approach it. Its components were obtainable everywhere; it was warm, it was light, it had texture, and it had a greater variety of colour than any other material. It weathered for centuries, improving meantime. It could be moulded, rubbed, cut, and carved. Finally, it responded to and rewarded a thousandfold the care and forethought of the user, if he were sufficiently an artist to appreciate its wonderful qualities.

The President (Mr. C. S. Errington), in calling upon Mr. W. T. Jones, F.S.A. (Durham) to propose a vote of thanks to Mr. Lloyd, referred to the fact that the popular local view of brick was that it was a cheap material and was only to be used when stone could not be afforded. He referred to the desirability of enlightening public opinion on this, and spoke of the beautiful effects which could be got from properly-selected brickwork. He thought local bricks were of a bad quality from the artistic point of view, and that they were too thick, being often about 3½ in. He wished the R.I.B.A. standard of bricks could be adhered to.

Mr. Jones, in moving the vote of thanks, agreed that local bricks were bad. He thought they were too hard and too brittle to cut, and he had found by experience that they would not stand frost well, particularly on gable copings. He thought it was undesirable to import bricks from other districts, as they did not harmonise with the colour of the locality.

Mr. G. T. Brown seconded the vote of thanks, and referred to the good work Mr. Lloyd was doing in drawing the attention of architects and the public generally to the small points in such things as brickwork and design, which made all the difference between satisfactory and unsatisfactory artistic results. He also emphasised the advantages to be obtained from the combined use of tiles and brickwork to provide the fillets necessary in arranging simple mouldings.

In reply, Mr. Lloyd said he regretted the term "bricks and mortar" had almost become an expression of contempt. He referred to the very great importance of little things which in the aggregate made big things, and the fact that it was how materials were used that should be regarded as much more important than what materials or facilities were available.

DEVON AND EXETER ARCHITECTURAL SOCIETY.

Annual Meeting of the Plymouth Branch.

The 25th annual meeting of the Plymouth Branch of the Devon and Exeter Architectural Society was held at Plymouth on February 24, when Mr. Anstis G. Bewes, A.R.I.B.A., President of the parent Society and Chairman of the Branch, presided. Amongst those present were Messrs. A. S. Parker, E. Coath Adams, J. Leighton Fouracre, W. A. Vercoe, R. A. Mill, A. C. Norman, H. Watts, H. Victor Prigg, B. Priestley Shires, and Eric E. Brown.

The Chairman, in opening the proceedings, referred in sympathetic terms to the death of Mr. Edmund H. Sedding, F.R.I.B.A., who in many ways had rendered good service to the Society in the past, and asked the members present to record their silent vote of sympathy with Mrs. Sedding and family in their bereavement.

The minutes of the last Annual Meeting were read and confirmed. Mr. Shires (Hon. Secretary and Treasurer) presented the Committees' reports, which stated that after the long period of partial eclipse of the Society's activities there were signs that the period of quiescence was drawing to a close, and that the Branch was likely again to justify its existence, more especially in the direction of helping its younger members. A committee had been formed to formulate a programme for the coming year, and there was little doubt that, with willing helpers, fresh life and enthusiasm might result in the local body. Another decision recently come to would afford full access to the Society's library for pupils who were receiving the Government's maintenance grant.

The Librarian's (Mr. H. Watts') report stated it was hoped new purchases would be made during the coming year. Thanks were due to Mr. A. G. Bewes and to Mr. W. A. Vercoe for gifts, and the donors were heartily thanked.

The reports were adopted, and all the officers were re-elected and thanked for their services.

On the proposition of Mr. H. Victor Prigg, seconded by Mr. W. A. Vercoe, the Sub-Committee's recommendations were carried unanimously. It is proposed to have four visits to buildings of architectural interest during the summer months and four lectures in the winter session. There are also to be competitions and prizes for the Associates for measured drawings, sets of sketches, and for designs for simple features.

Mr. T. Peirson Frank, F.S.I., A.M.Inst.C.E., was elected an Honorary Member of the Branch.

The annual meeting of the parent Society will this year be held at Exeter during March.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

Architectural Education.

A meeting of the Birmingham Architectural Association was held on February 25, when the President, Mr. H. T. Buckland, F.R.I.B.A., occupied the chair.

Mr. Lionel B. Budden, M.A., A.R.I.B.A., read a paper on "Architectural Education," in the course of which he said the faculty of design could only be stimulated and given means of expression, and it was for this that a school was better fitted than an office as a means of instruction. The greatest difficulty was how to correlate the school and the office. The pupil could go to a school in the morning and to an office in the afternoon, but he would have great difficulty in concentrating on his work; he could go to an office in the daytime and to classes in the evening, but then he would be exhausted and almost incapable of taking in knowledge; or he could go to a school for certain periods of the year and to an office during the remainder, and that seemed the most sensible and correct method to employ.

In the space of five years there was not sufficient time to teach more than one style, and the principal of the school should decide on the most suitable, and teach it thoroughly in all its aspects, ignoring other styles entirely. The speaker advocated the adoption of an academic system of architectural education which would be able to offer scholarships, thereby affording an opportunity to people who had the ability but who could not afford to pay the fees.

At the conclusion of the lecture, Mr. W. Heywood proposed a vote of thanks, which was seconded by Mr. E. F. Reynolds, and carried unanimously.

ARCHITECTURAL ASSOCIATION OF IRELAND.

Mesopotamia and Western Persia.

An ordinary meeting of the Architectural Association of Ireland was held at 15, South Frederick-lane, Dublin, on February 22. The President (Mr. J. C. Dewhurst, A.R.I.B.A.) occupied the chair.

Major R. H. Plews delivered an interesting lecture, entitled "Mesopotamia and Western Persia," which was illustrated by numerous excellent slides made from photographs taken by the lecturer. Major Plews gave a graphic description of Mesopotamia, its buildings, and inhabitants.

A cordial vote of thanks to Major Plews was proposed by Mr. C. A. Harrington, M.R.I.A.I., and seconded by Mr. T. F. Strahan, M.R.I.A.I.

EDINBURGH ARCHITECTURAL ASSOCIATION.

George-square, Edinburgh.

At the last meeting of the Edinburgh Architectural Association (Mr. T. P. Marwick, A.R.I.B.A., President, in the chair), Mr. W. Forbes Gray, F.R.S.E., delivered an address entitled "George-square: Its History and Romance, 1766–1800."

George-square, he said, was the creation of James Brown, an Edinburgh architect, who was also responsible for the erection of Brown-square, Charles-street, Crichton-street, and Buccleuch-place. The square was not called after George III, as was generally supposed, but after George Brown of Lindsaylands and Eliston, the architect's brother. Building operations were begun in 1766, the first houses being erected on the north side. By 1779 the East and west sides were completed, while the south side was finished about 1785. The stone was obtained from Craigmillar. George-square, during the period under review, was the abode of much of the poetry and charm of Scottish life. At least thirty Border families, all noted more or less, had their town residences there.

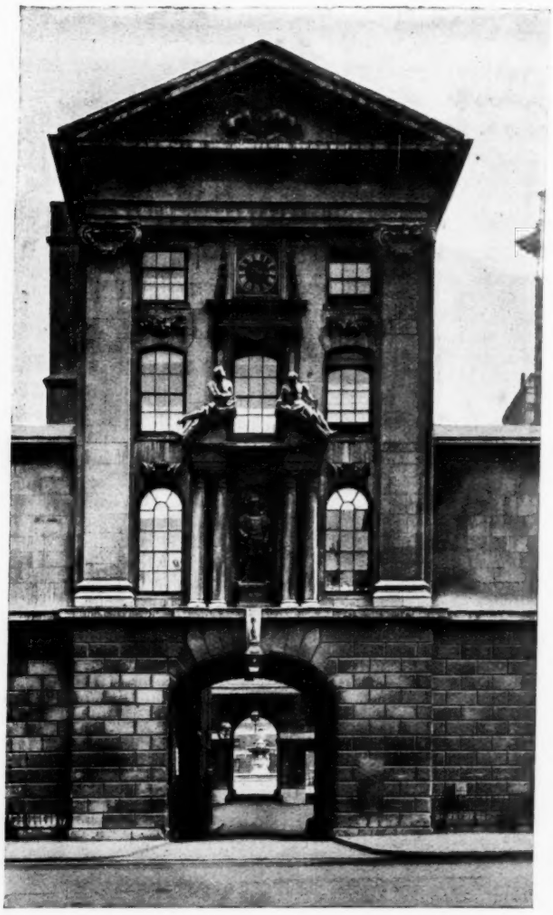
Victoria and Albert Museum.

In connection with the Franco-British Exhibition of Textiles at the Victoria and Albert Museum, the arrangement of the two rooms on the west side of the South Court has now been completed. The loans from British sources shown there include seven fine Brussels tapestries with scenes in the style of Teniers. These tapestries, illustrating the most skilful productions of the Flemish looms, are contemporary with the Gobelins tapestries shown in the Salon d'Honneur, and the products of these two famous weaving centres at the end of the seventeenth century and the early part of the eighteenth can be compared. The rooms also contain other loans of textiles. The Exhibition will remain open free daily until April 17.

BOOKS.

The Eighteenth Century in London: An Account of its Social Life and Arts. By E. BERESFORD CHANCELLOR, M.A., F.R.Hist.Soc. London: B. T. Batsford, Ltd. Price, 35s. net.

THE eighteenth century is so near to our own time that it has a more familiar and personal interest than any other century, except the nineteenth. Not only have some of us conversed with those who actually lived in the latter part of the century, but we still have a good many of the actual buildings of the period and an abundance of material, both literary and artistic, with which to reconstruct the social and artistic life of a most fascinating time. In fact, with so much material to select from, Mr. Chancellor's difficulty must have been to know what to omit in order to keep his book within the limits of a single volume of some 280 pages; but while much has been omitted, it may be conceded at once that the author's hope has been fully realised and that he has given an admirable picture of the London of the period, of its old buildings, forgotten institutions, and its memorable people. Apart from the 192 interesting and excellently produced illustrations, several of which we give in this issue, the book is full of entertaining matter which cannot fail to appeal to the general reader, who will find this most decorative and popular period re-created, as well as the architectural reader, to whom it will be of more special value. One of the objects the author has aimed at has been to show what architectural remains of the eighteenth century still exist in London; another, to point out how reconstruction and rebuilding have altered the outlines and general appearance of the city; and a perusal of the work shows how well he has accomplished these objects and gives some indication of his intimate knowledge of the subjects he deals with. The book is divided into eight chapters: "The Social Life of the Period"; "Street Topography"; "Pleasure Resorts"; "Clubs, Coffee-houses and Taverns"; "Great Houses and Public Buildings"; "The Churches"; "The Arts in the Eighteenth Century"; and "Architectural Relics of the Period." These chapters show the importance of London at this period in the life of the nation, and we are made to realise that the city was the centre of the nation's commerce, the seat of the Court and the nobility, and that to it art and literature owed the patronage they received.



St. Bartholomew's Hospital, Smithfield.

The author refers to many subjects of interest to our readers, especially useful being his remarks on the architectural remains of the period. In this connection he says:—

"If we seek for the remains of eighteenth century buildings in the London of to-day, we find them scattered all over the central portion of the Metropolis; but hardly any whole district, except perhaps Bloomsbury—and this now in process of great changes—can be said to be representative of even the latest years of that period. The squares were, as such, mostly formed between the years 1700 and 1800, and consequently, as their houses were of a size and distinction generally more marked than those in residential streets, they still contain a *residuum* dating from this time. Berkeley, Cavendish, Hanover, Grosvenor and Portman squares—the squares of Bloomsbury—Soho, Golden and Kensington squares—all exhibit examples of the easily recognised brickwork, and in some instances stonework, of that day. In certain streets of Westminster—College-street and Barton-street and others—as well as in much of Mayfair formed by Sir Richard Grosvenor during the earlier half of the period, you will meet with so many examples as to give an idea of the general effect of residential London of the earlier eighteenth century. Here and there, too, in the City, there exist similar remains, not only in houses (now used as offices), but in the great City halls and other semi-public and official buildings; but the rebuilding and re-development of whole areas in the time of George IV, and still more so in that of Victoria and at the present time, have obliterated much in localities where we might expect best to find survivals. Thus, in Piccadilly, one comes across but a few, and these, chiefly, structures which have passed from private to semi-public uses, and have, therefore, escaped the destruction which, judging from other instances, would inevitably have overtaken them. Pall Mall is in worse case, for there nothing remains of the exact date (Schom-

From *The Eighteenth Century in London.*

Lansdowne House: Entrance Hall. THE BROTHERS ADAM, Architects.

burg House—or its relic—is earlier); and I suppose No. 51, Dodsley's publishing headquarters, now pulled down and rebuilt, was really the last example existing down to recent days."

Both author and publisher are to be congratulated on this work, which does much to visualise and re-create the social and artistic life of the period.

Continuative Education under the Fisher Act: Points for Employers. By M. A. CLOUDESLEY BRERETON. London: Knapp, Drewett & Sons. Price 2s. net.

This is a 44-page pamphlet, giving details of the working of the new Act as regards continuation schools, by Mr. Brereton, who is responsible for the official education organ of local authorities, and embodies papers read by Sir R. Blair and other authorities on this subject and various Board of Education circulars. Some people even yet fail to realise that after "the appointed day" the Act becomes compulsory and obliges children not fourteen years of age on this day to attend a continuation school, which may be an approved works school provided by an employer or a State established school. As pointed out by Sir R. Blair, when, after some years, the Act becomes fully operative, *i.e.*, applies up to eighteen years of age, the attendance at these schools will reach half a million, and the roll of pupils some two million, requiring 25,000 teachers, and the cost to the tax-payer will be twelve millions. This, then, is no light matter, and those responsible for "young persons" will do well to study their obligations. Considerable latitude is to be allowed in the subjects taught, and the lines upon which these schools are "run." From fourteen to sixteen years of age the education should, we are told, be general and free from vocational bias. Obligation on the authority is based on residence, not location of daily work—a much debated condition. Eight hours a week, usually two four-hour periods, are required from each pupil in these schools. They are to be essentially character-building institutions, where physical development, social activities and the cultivation of a wide and sane outlook on life should be initiated, and we are glad to gather that teachers will be encouraged to start their programmes from the daily interests of their pupils, and work back from these to the principles which underlie them rather than to begin in the usual academic manner. We are quite sure that only in this way will interest and incentive be successfully encouraged. It is pointed out that the interests in the daily lives of the pupils employed in some wage-earning capacity for the rest of their time are so wide that there should be no difficulty in attacking the problem of the school's work in this manner. We know that this method has been successful for many years in Germany. What we must avoid for success is the detached atmosphere of the ordinary school course. A broad humanising influence is essential, and this involves as a salient, almost overwhelming, factor the personality of the teacher. There is much food for thought in these pages, which we commend to all interested in this important educational development.

From *The Eighteenth Century in London.*

Spencer House: The Painted Room.

HOUSING AND TOWN-PLANNING NOTES.

The Cost of House Building.

In reply to a question in the House of Commons last week, Dr. Addison said that, having regard to the paramount necessity for limiting public expenditure, the Government was considering what further action could be taken with a view to reducing the excessive cost of housing schemes.

In view of the high cost of building, the Eastern District Committee of the Haddingtonshire County Council has unanimously agreed to abandon portions of its housing schemes at Westbarns, Whitekirk, and Innerwick.

The Lutterworth Rural District Council has decided to interview the Housing Commissioners with a view to deferring its housing contracts, except in those parishes where work has been started, owing to the heavy burden of the taxes and the high cost of building materials.

At the next meeting of the Wigton Rural District Council a resolution is to be considered that, owing to the high cost of building, all resolutions pledging the Council to build houses be rescinded.

Land for Housing.

WALTHAMSTOW.—Mr. Howard Martin, Official Arbitrator, sat at Westminster last week to hear a claim by the Trustees of the late Mr. Samuel Loveridge against the Walthamstow Urban District Council concerning the Council's compulsory acquisition of 22 acres of land at Billet-row, Walthamstow, for housing purposes.

Mr. R. T. C. Dill (for the claimants) said the claimants originally agreed with the Council to let them have the land for £8,250, but the Housing Board objected to the purchase. Mr. S. A. Wild (of Messrs. Farebrother, Ellis & Co.), on behalf of the claimants, submitted a valuation amounting to £7,850.

On behalf of the Urban Council, Mr. P. W. Smith (District Valuer of the Inland Revenue) submitted a valuation amounting to £4,400.

The Arbitrator reserved his award.

Tees-side Town-Planning Scheme.

Representatives from the various local authorities on the north and south sides of the Tees met in conference at West Hartlepool last week, with respect to the proposed joint town-planning scheme on North Tees side. The West Hartlepool representative pointed out that they were not prepared to come into the scheme, as they already had a scheme of their own. They were, however, quite prepared to confer with a view to co-ordination. It was decided that the technical heads of the various authorities should meet and prepare a scheme for submission.

Unwanted New Houses.

It is reported that, at a meeting of the Ampthill (Bedfordshire) Rural Council, on Saturday last, a member stated that in one small village there were twenty new houses for which no tenants could be found. The houses were built near some works to save the men from having to walk two miles from other villages, but they preferred their old cottages. The Council decided to defer three new housing schemes.

WEEKLY HOUSING RETURN.

Progress of housing schemes up to February 18:—Schemes submitted, 11,641; approved, 9,003. Lay-out schemes submitted, 7,286; approved, 6,736. House-plans submitted, 296,342 houses; approved, 277,795. Tenders submitted, 190,318 houses; approved, 176,715. Contracts have been signed for 148,566 houses.

Schemes dealt with during the week ended February 18:—Schemes submitted, 27. Lay-outs submitted, 15; approved, 30. House-plans submitted, 960 houses; approved, 785. Tenders were submitted for 1,969 houses, and approved for 1,430. These schemes include the following:—

Applications.

LAY-OUTS.

URBAN.—Seaton Delaval, Thame.

RURAL.—Caistor, Flaxton, Lexden and Winstree, Neath, Staines, Upton-on-Severn, Wokingham.

COUNTY COUNCIL.—Lancashire.

HOUSE-PLANS.

URBAN.—Carlton, 8 houses; Clayton, 40; Connah's Quay, 156; Dukinfield, 91; Hendon, 50; Llanelly, 11; Mountain Ash, 24; Ogmore and Garw, 300; Padiham, 10; Tottington, 2; Ware, 2.

RURAL.—Barton-upon-Irwell, 20 houses; Buntingford, 6; Congleton, 8; Daventry, 6; Dendraeth, 23; Easington, 4; Hartlepool, 40; Hemel Hempstead, 8; Lexden and Winstree, 10; Long Crendon, 2; Luton, 24; Penybont, 40; South Mimms, 4; Spilsby, 8; Upton-on-Severn, 12; Wetherby, 8; Wokingham, 40.

Approvals.

LAY-OUTS.

URBAN.—Battersea, Caterham, Dukinfield, Swadlincote, Warrington.

RURAL.—Bromley, Caistor, Chertsey, Clown, Flaxton, Hailsham, Henley, Kettering, Lexden and Winstree, Norham and Islandshires, Staines, Ulverston, Upton-on-Severn, Winchester, Wokingham.

HOUSE-PLANS.

URBAN.—Carlton, 8 houses; Caterham, 72; Clayton, 40; Dukinfield, 91; Padiham, 10; Ware, 2; Withernsea, 80.

RURAL.—Barton-upon-Irwell, 20 houses; Chertsey, 8; Durham, 200; Easington, 4; Great Ouseburn, 16; Hailsham, 12; Lexden and Winstree, 10; Llandilo Fawr, 12; Penybont, 40; Shardlow, 8; S. Mimms, 4; Spilsby, 8; Ulverston, 4; Upton-on-Severn, 12; Wetherby, 8; Winchester, 50; Wokingham, 46.

Tenders Approved.

URBAN.—Barnstaple, 12 houses; Bollington, 16; Brighouse, 7; Brixham, 6; Brownhills, 250; Carlton, 8; Chesham, 75; Christchurch, 12; Darlaston, 16; Earsdon, 26; Heath Town, 32; Irlam, 50; Lewes, 18; Northampton, 60; Nottingham, 4; Nuneaton, 10; Short Heath, 32; Wadebridge, 12; Wantage, 14; Ware, 2.

RURAL.—Blything, 12 houses; Bourne, 8; Caistor, 6; Clutton, 14; Daventry, 6; E. Dean and United Parishes, 2; Gretton, 12; Hinckley, 24; Hitchin, 106; New Forest, 12; North Witchford, 10; Orsett, 22; Oxendon, 2; Romsey, 8; Rotherham, 40; Ruthin, 10; Shardlow, 8; Spilsby, 18; Stratford-on-Avon, 6; Thirsk, 14; Thorne, 299; Tutbury, 4; Williton, 8; Wincanton, 22; Winslow, 10; Wokingham, 46.

COUNTY COUNCILS.—E. Sussex, 3 houses; Lancashire, 6.

"Luxury" Building.

The Coventry City Council has refused to support the prohibition of proceeding with the erection of a cinema theatre and shops at the corner of Jordan Well and Whitefriars-street because of the shortage of plasterers in the building trade. The case for the owner was that since August, 1920, progress had been made with the work for which permission had been given, and, as nearly £50,000 was locked up in the building, permission was asked to complete the hall over the shops. The work to be done was mainly plastering, for which nearly all the material was on the site.

THE BRITISH INDUSTRIES FAIR (BIRMINGHAM).

THE British Industries Fair (Birmingham), which was held at the Castle Bromwich Aerodrome, Birmingham, from February 21 to March 4, was a great success and attracted large numbers of people daily, including many foreign buyers. All the available space was occupied, and although the number of exhibitors did not differ very much from that of last year, the floor space occupied was considerably larger and the character of the exhibits fully representative.

The gas and electric fittings section was a very large one, and visiting buyers found a splendid variety of the products of these industries awaiting their inspection. In that great group which comprises such articles as cooking and heating stoves and grates, builders' ironmongery and brassfoundry, shop fittings, &c., there was a fine and representative series, and a number of novelties were introduced.

Samples of metal furniture, household ironmongery, hollow-ware (galvanised, enamelled and aluminium), copper and bronze goods, constituted a large section of the Fair, and there was every indication that manufacturers in these trades, most of which are peculiarly susceptible to foreign competition, were determined to put up a strenuous fight to maintain their supremacy. In the general hardware class there was an interesting and fully representative collection, accompanying which there was a repetition of the exhibit of the combined Metal Associations, which covered a large floor space.

The engineering sections provided an interesting and valuable centre of attraction. Owing to the proved success last year, these sections in 1921 were much more representative, and exhibiting firms transacted much remunerative business, notwithstanding the existing trade depression.

The sections which comprised paints, colours and varnish, motor cycles and cycle and motor accessories, were well supported by some of the most representative and progressive firms in the industries concerned. Altogether, the Fair was one of which British industry may well be proud.

Water Pipes and Fittings.

The Standing Committee on Water Regulations of the British Waterworks Association has now completed the revision of the Specifications of Standard Water Pipes and Fittings. The British Waterworks Association took over the powers and duties of the late Incorporated Joint Committee on Water Regulations, which was wound up in voluntary liquidation in November, 1919. That Joint Committee issued Specifications in 1908, which were revised in 1912 and supplemented in 1913. These Specifications have been under revision during the past twelve months and the first issue of the 1921 Revised Edition of the Specifications is now available upon application to the Secretary, British Waterworks Association, Metropolitan Water Board Offices, New River Head, 173, Rosebery-avenue, London, E.C.1, at 5s. per copy.

Greater Output in Building.

Mr. W. G. Tarrant, managing director of Messrs. W. S. Tarrant, Ltd., builders, of Byfleet, Surrey, addressing over 2,000 employees of the firm on Saturday, said that if wages were not to fall there must be greater output, and he appealed to them to forget their squabbles and pull together. A 44-hour week was not fair; it was like children playing at marbles. He would prefer a 50-hour week, so that the cost of houses could be so reduced that their fellow-workers could pay an economic rent. A resolution was carried unanimously agreeing to increase production by at least 10 per cent., leaving the questions of hours and wages in abeyance.

THE BUILDING TRADE.

MONOPOLY.

By H. Bryant Newbold.

Mr. J. H. Thomas, M.P., speaking at the Labour Conference on Unemployment at the Kingsway Hall on February 23, said: "Let us return Labour representatives so that they can go to Parliament with a new mandate and a new message to the Government, to the effect that they do not intend it to proceed with any other business until the unemployment problem has been solved." The delight of Mr. Thomas and his friends at the fact that a partial solution of the problem is to be achieved by means of the proposed absorption of 50,000 ex-Service men into the building industry can only be guessed. There will now no longer be the need for so emphatic a mandate. Nevertheless, it is a matter for congratulation that at least one section of the community is determined to discover a solution to the problem which has beset the world since those days when Eve's monopoly of employment brought about the downfall of herself and her fellow worker.

This thought possibly brings us to some inquiry into the subject of monopolies. Now, it would appear from a certain authority upon words, that a monopoly means the possession by whatsoever means of the sole right to carry on a particular trade, industry, or occupation. In the past, monopolies, of course, were the perquisite of the capitalist, for no one then heard of anyone being desirous of monopolising the delicate art of stone-breaking. Therefore, being thus unequally shared in by humanity, it was thought only just that monopolies should be abolished. The rich man should no longer have the right to monopolise an industry—he must participate therein with his fellows. From which labour grew up and flourished; and, its power increasing, it set itself about with many protective prohibitions, until a man might no longer work with his hands at any work in such a manner as pleased himself—he must work only for a certain set time, and at a certain rate during that time. Neither must he do any type of work other than that clearly demarked unto him; nor was it permissible for him to show any interest in his work lest he might forget himself, and so overwork, and raise the standard of his output. This would, indeed, be the most serious of crimes.

So was achieved the revival of monopolies in the monopoly of the right to work at a particular occupation, and it was a more powerful right than the old defunct monopolies in that it controlled the employer as well as the employed; for the employer might no longer have a voice in the arrangement of the price paid for, or the amount of, the work done. No doubt this was viewed by some as a most satisfactory reversal of affairs, until for some reason, not too well understood, the work itself, though so carefully monopolised, began, like one strangled, slowly to fade away and to threaten finally to cease.

Whereupon those in the main responsible for this condition of monopoly set about to find some solution for the problem which beset, and at the same time bewildered, them, and in common with all bewildered beings they looked around to find someone at whose door they might lay the blame. And it was natural that a Government from which such great social revolutions had been looked for should come in for its just share of recrimination—the erring Government must be made to recognise the error of its ways, and must be given a mandate to err no more.

All of which at first sight would appear a very right and proper attitude, but upon a more mature reflection an insidious doubt begins to creep into the mind. Can it be that, in casting around to find someone at whose door to lay the blame, our friends have overlooked a possible source of the misfortune? It has been known that a gaze centred too fixedly upon the horizon has been blinded to the immediate foreground, and the mind of the beholder become oblivious to his own standpoint. Can it be so now, that the monopolists themselves are to blame for this very shortage of employment as resulting from self-imposed restrictions? Such unforeseen achievements are not unknown. It is possible to over-manure even a vegetable marrow.

Can it be that the building industry, for instance, is being strangled by this condition of monopoly which, in making the output in the trade cost double that which it ought, so clogs the issue as to defeat its own ends by bringing about an abortive situation? Is it possible that the cost of production may force up the price we have to pay for an article to such a height that we cannot reach it? What then must we do? Either we must raise ourselves still higher, or we must lower the altitude of the article; or at worst we must do neither, and go without. Which last, having tried the two former, is, like it or not, the position in which we find ourselves to-day with regard to the building trade.

Can we not by some temporary sacrifice to ourselves achieve our purpose in even yet another way? And whilst considering sacrifice, may we not perhaps recall to mind the greatest sacrifice yet known to history, made by those who, only a few years ago, sacrificed all they had in defence of this country we say we love, but so wrangle in one with another? Is there any sacrifice too great for us to make for those who rendered our continued existence possible here to-day? Would it be too much to ask of ourselves that we should stand aside, and if need be to starve, that those might feed who offered their very lives in sacrifice for us?

Can we by means of our hard-earned monopoly deny them anything, even the right to work, which we claim in so decided a voice for ourselves? No, a thousand times! The very thought would shame the basest of us to extinction; and were it a million instead of 50,000 our sense of manliness and honour, dearest of all British attributes, would demand of us that we should welcome these ex-Service men back to the industry which they have made possible for us. And, be we labour or capital, to act otherwise would be to forget that we are men, and to descend far lower than the lowest brute which mankind has scarce permitted to exist.

This very attitude of mind it is that has led the master builders to agree to admit 50,000 ex-Service men into their industry, feeling confident that in doing so they will have the support of the nation behind them, and, indeed, the support of the major portion of the operatives themselves, who are, at heart, above all things men, and British at that. For it is becoming increasingly apparent to those who come into close touch with those in authority amongst the operatives, and indeed it may be said throughout the industrial world generally, that once again experience has taught. The lesson, as is usual in the case of lessons gained from experience, is perhaps a little distasteful and difficult to swallow, but in the present instance the men's leaders, who are above all things men of honour, who abide most determinedly by their honest convictions, are already setting themselves to swallow the pill and adapt their constitution to its effect; and at such a time it would be as unseemly as it is unnecessary for anyone to rub it in—the medicine will do its calculated work unaided by external massage.

Nevertheless, it is well that it should be universally recognised to what position of deadlock detrimental to humanity generally this policy of the suppression of individuality has led us. Nature, when contravened, though slow to object, does so finally in a manner which will brook no denial; and medicine can do no more than relieve the constitution of clogging matter and so open out channels for the flow of natural vitality. Nature will not be denied; neither may the individuality of man, which is one of Nature's first laws, be circumvented. Individuality has made itself felt from the time when history first tells of man, and will continue so to do in spite of any mere man-made law. To be tersely practical, were you to give each man as his birthright an annuity of £1,000 per annum there would not pass a decade before nine out of every ten men would be indebted in some way to the tenth. It always has been so, and always will be. And is it not only just that to the industrious should fall the righteous reward of that industry, and not, as some would have us believe, that to all alike should be made payment whether they live a useful life or not?

The theory is exploded. Now let us get to work again, well understanding that the best man amongst us will win the prize, whether we like it or not; and that it is, therefore, incumbent upon us—nay, vitally essential to each one of us—that we must do our best, and by this means alone can be achieved the universally deserved condition of work and happiness for all.

The Tunbridge Wells Tradesmen's Association.

Mr. Percy Down, Managing Director of Messrs. John Jarvis, Ltd., builders and contractors, Tunbridge Wells, has been elected President of the Tunbridge Wells Tradesmen's Association and Chamber of Commerce.

DILUTION IN THE BUILDING INDUSTRY.

Some Thoughts on the Present Position.

THE following article is from an architect and surveyor who takes a special interest in industrial problems :—

In *The Builder* for February 11 a statement by Dr. Addison is reported. He said there would be plenty of work for 50,000 more men in the building industry, and the unions had no right to stand out against men who had risked their lives for the country being recruited to help in the building of houses.

Although the situation can hardly be dismissed by the rhetoric of the Premier and Dr. Addison, yet popular feeling will be entirely on their side. In writing about unemployment it is almost impossible to avoid appearing callous and unsympathetic, and it seems cold comfort to say that unemployment was bound to come and is the natural result of preceding conditions. To all appearances we have been fantastically prosperous, yet the grim spectre of unemployment is now upon us. The building industry is fully employed ; to it has fallen the problem of absorbing the national unemployed, and we can assume that the building operative will speculate on what the cotton operative or the engineer would do in similar circumstances. It is quite useless to blame the Government, but it must be remembered that it is only a little over two years since it was demonstrated what an unmerciful and wasteful weapon dilution can be in the hands of Government officials.

Since the Armistice the building trade has been kept very much before the public. The bricklayer has not lived up to expectations ; we know too much about him, and all about the number of bricks he ought to have laid, but what we do not know is how many fewer bricks he could have laid and still have been in ample time to complete the buildings before the glass and other materials arrived on the job. By living on popular tit-bits from the Press we are apt to get a distorted view of most things.

It cannot be denied that the building trade operative during the past two years has, on the whole, been disappointing, and often very annoying. Probably we exaggerate the difficulties of the particular industry in which we are engaged, and it may be that the bricklayer has been no more arbitrary than any other tradesman. The position is easily understood. Owing to the war there was an accumulation of building work ; the men were scarce, and having secured a reduced working day (like every other trade) they obtained as many concessions as they could, at the same time working as leisurely as circumstances would permit. This was the familiar post-war development, and simply demonstrates the fact that trade was booming and labour could make its own demands and conditions. We accept the principle of a workman aiming for better conditions for himself when he is in a position to press his demands, but to restrict his output is not only unworthy but is an uneconomical policy which inevitably brings its own penalty. When bad trade comes the pendulum swings the other way, and the master builder is able to exact his conditions on the journey back and in the period of unemployment. It is natural to judge a workman's shortcomings in relation to the actual hardships he imposes upon the immediate needs of a community—we blame the bricklayer for the shortage of dwellings for his fellow workers, the collier for his inhumanity in allowing hospitals to be in want of coal, and the farmer when children have to exist without milk. In point of fact the moulders' strike about a year ago dealt perhaps the most severe blow which this country has suffered since the war.

It is an extraordinary thing that the problem of the dilution of the building trade should come up for settlement just at a time when the amount of work is showing signs of falling off. The general trade of the country has slumped, and the immediate need for many industrial buildings has gone. If the day of high prices for commodities has gone for ever, then it may be that many contemplated building schemes will never be revived. He was a wise architect who advised his prospective client that when buildings would be cheap to erect so would the client's produce be cheap to buy, and the proof of this will be seen when those who build during the dearest period commence to manufacture upon a falling market.

Since the termination of the war it has been evident to many that the building work in hand has been greatly in excess of the labour and material available, and many architects would agree that shortage of material was the most serious factor. The clumsy idea of the building material manufacturers in attempting to give to each builder or contract a small quantity of material to go on with was responsible for a large number of contracts extending over a long period, at the same time giving satisfaction to nobody. It was a common experience to have half a roof glazed, no rainwater pipes, and a delivery of cement (for flooring) in five or ten-ton lots when ten times that quantity would have been insufficient. Of what good was the half-glazed building to anyone? The building trade manufacturers would have done a greater service to industry if the erection of some buildings had been accelerated and so enabled to participate in the high prices then ruling—it is quite certain that many firms would not have proceeded with their building schemes had they foreseen these delays. It is obvious, of course, that the allocation of material would have been both a delicate and a difficult proceeding ; nevertheless, had it been recognised, it would have avoided the temptation for the builders to take on more work which they were unable to deal with satisfactorily.

Collateral with the enormous demand for industrial buildings, the Government has attempted to carry out its housing schemes. The attempt has been a failure, and was doomed from the outset. The housing schemes were in competition with industrial buildings which in many cases had to be erected at any cost, and it was perfectly obvious that the builder would tender for the contracts which paid him best. Admittedly the difficulties were great, and an attempt all through has been made to compromise upon an uneconomical proposition. For nearly two years the builders have been haggling over the terms with the Ministry of Health, and the various corporations have postponed what they considered "luxury" schemes to foster the erection of dwellings.

The erection of public buildings or offices cannot be contemplated with building costs at the present figure, and with a Rent Restriction Act in force houses are not being erected by private enterprise ; the erection of factory buildings has been postponed or may be cancelled, and the stagnation in trade will put an end to some other building schemes. It may be argued that the slump in trade generally is merely temporary, but it is much more likely that it is merely a prelude to the gradual adjusting of prices to a still lower level. Assuming that this is so, it would seem that the Government has an opportunity of obtaining all the labour required for housing without any dilution.

The fact that the Government is directly interested in the building trade is no doubt responsible for the attempt to provide a solution for its own difficulties, at the same time dealing with the problem of unemployment. But there must be a feeling of doubt in the ability of the Premier and his advisers to provide a solution of trade difficulties. The Premier has a penchant for the word "somehow" which he frequently uses, even when deciding the fate of countries—something must be settled "somehow," and it invariably ends in a settlement "anyhow." In his attempt to please the public his settlement of the coal strike was based upon a condition that the miners should produce more coal. The miners have carried out their bargain, but it appears that a trivial little flaw has developed, and the country is now astonished to find that the market for our exported coal has gone to pieces. Assuming that the building trade can absorb 50,000 extra men now, has the Government considered what the position will be, say, at the end of six months?

The problem of dilution directly affects the operatives, and it is to be feared it would be too much to expect them to settle it in a spirit of chivalry. Though the feeling of patriotism has run high, we become worldly-minded in our domestic affairs. Our sympathies are with the ex-Service men, yet we realise that whether there is dilution or not there is a distinct possibility that wages in the building industry will come down. Dilution of the building trade, coupled with a falling off of work, will certainly accelerate the downward course of wages, again causing more trouble, which the Government will conveniently hand over to the builder for settlement.

The situation will interest the architect merely from an academic point of view. Anything which will bring down the cost of building will be welcomed by him provided that no injustice is done to the workman and the standard of craftsmanship is not lowered for the future. The architectural profession had an experience of dilution during the war, and they know exactly what the result was. The President of the Royal Institute of British Architects has stated that "they submitted to the bureaucratic control of the Government during the war without grumbling, but they were now sick to death of being governed by the petty, trivial interference of officials."

It is more than likely that the workmen likewise have not forgotten their experience during the war. They remember the crowds of Irish and Portuguese navvies to take the place of our men called up by the Army, and the clerks, drapers and publicans drafted into the building trade. They remember the advertisements in every evening paper for skilled tradesmen, and the inducements of overtime, whilst another official was at work delaying their exemption and harassing them in every way. Many competent judges attribute the stiff-necked attitude of the building operative to the unnecessary pressure and unsympathetic methods of officials completely out of touch with the building trade.

The wisest course is to allow a trade union to work out its own salvation. There is a change coming in every trade, and the building trade will not be exempt. The country will be placed upon an economic basis again when we produce upon economic terms, which means lower wages and increased production. Failure by the unions to see this will inevitably result in unemployment, which in the end brings us to the same position.

No amount of writing can give a solution to this question ; there is no such thing as a right or wrong solution to it, and we can only attempt to rev ew the position. It is a fact known to every economist that the building trade is the last to suffer in a period of general trade depression, and correspondingly it s the last trade to derive any benefits in a revival. Hence we have general unemployment when the building trade has only just commenced to feel the pinch of the general depression in trade ; the second stage of the development has yet to come. It is anticipated that in a month or two there will be serious trouble in the building trade when the wages position comes up for revision, and there is an uneasy feeling that the acceptance by the master builders of the dilution scheme will be simply another stick with which to beat the operatives. Increases and reductions of wages are economical problems in which there is ample room for trouble and misunderstanding ; further to complicate them with a national problem would seem to be a pretence and an unworthy method of attempting to solve the difficulty of employing ex-Service men. If we are not yet ready to deal with unemployment on other than opportunist lines, we at least ought to be careful that we do not aggravate and raise up greater difficulties.

THE CONCRETE INSTITUTE.

IMPERMEABILITY IN CONCRETE.

AT the last meeting of the Concrete Institute, Mr. Ewart S. Andrews, B.Sc. (Eng.) read a paper entitled "Some Methods of Securing Impermeability in Concrete."

The causes of permeability might, he said, be considered under three main headings:—

(*a*) Materials percolating through voids in the material.

(*b*) The existence of cracks right through the concrete.

(*c*) Chemical action of materials on the concrete even when there were no voids or cracks.

Secondary actions often gave rise to trouble under (*a*) and (*b*), due to chemical or physical action of liquids which found their way into the pores of the concrete.

The common methods of avoiding permeability might be classified as follows, leaving out of consideration the question of cracks in the concrete:—

(*a*) Void-filling methods: Preventing voids by dense concrete; integral preparations; materials added in making concrete; and modified cements.

(*b*) Coating methods.

There was no doubt that one of the best ways to make concrete impermeable was to grade and mix it properly. Careful experiments had shown that concrete could be made waterproof without the addition of waterproofing compounds. If the energy spent in preparing and applying these compounds were expended on careful proportioning, mixing, and supervision in making the concrete, the engineer would obtain just as good results, probably at less cost. This applied particularly to the case in which, as in reinforced concrete, for purposes of strength it was desirable to employ a concrete comparatively rich in cement. With any given aggregate it was possible to determine by simple experiments the proportion of mix to give the densest concrete. The densest concrete would also be the strongest and the least permeable concrete. Instead of employing comparatively expensive materials to fill up the holes in the concrete an endeavour should be made to prevent the production of such holes.

The method of reducing permeability of concrete by means of the "integral" system consisted of the use of certain materials which were added to the concrete when it was being mixed; the action of some of these materials might be described as inert, their function being merely to fill up the voids in the concrete. Others, commonly of the soap family, had a chemical action upon the cement; while others were claimed to have a kind of catalytic action in promoting the formation of colloids which increased the hydration of the cement.

Experience had shown that the addition of hydrated lime to concrete caused the resulting concrete to be more dense and uniform. In a report of the United States Bureau of Standards it was stated that the value of hydrated lime as a waterproofing medium was due to its void-filling properties only, and that similar results could be expected from any other finely ground inert material; but the author believed that the effect of the lime in providing a "fatter" mixture was one of considerable value which most other inert materials would not possess. One virtue of the hydrated lime was that it absorbed and retained moisture which the slower acting cement could utilise. He did not remember one case in which any harmful effects were attributed to the use of hydrated lime. A very large number of finely-ground materials had been found to decrease the inert permeability of concrete; mention might be made of felspar, clay, sand, Portland cement (ground finer than normal). In considering the use of these inert fillers it ought always to be considered whether as good results would not be obtained by the use of a correspondingly increased quantity of cement.

One of the oldest methods of waterproofing concrete was the Sylvester process, which consisted in applying coats of soap and alum. The two materials combined to form an insoluble aluminium soap or stearate of aluminium. The same process was also used as an "integral" preparation, the alum being often mixed with the cement, and the soap with the mixing water. Other chemically similar methods consisted of the addition of materials which would cause the formation of the insoluble calcium stearate in the pores of the concrete. There appeared to be evidence that the void-filling materials of the soap type were liable to become ineffective in the course of time, due to the presence of various impurities in the water or to the nature of the other fluid retained in the vessel which slowly dissolved out the aluminium or calcium stearate, thus leaving the concrete probably more porous than it would have been had the material not been added.

In dealing with coating methods two types of coating materials could be considered—(*a*) those employed to prevent the materials used from attacking the concrete chemically, and (*b*) those employed to form a dense impervious layer to the concrete. The aim with the second class was to penetrate into the surface of the concrete, and with the first to form a resistant skin outside the concrete. Coating methods should be considered in relation to the nature of the material to be contained in the tank or other vessel which was required to be impermeable.

The "Sylvester" process was the equivalent of the soap and alum process. Good results had been obtained with a solution of 2 ozs. of alum per gallon of hot water and a solution of 12 ozs. of Castile soap per gallon of hot water. The alum solution was applied first and worked in with a stiff brush, and immediately followed by the hot soap solution. The temperature of each wash should be kept at above 100 deg. F.

Many cases were recorded of successful coating to avoid permeability difficulties by means of the paraffin process. The paraffin might be dissolved in a high volatile compound to enable cold application; the liquid was rubbed thoroughly into the surface with a stiff brush, three coatings being desirable when the surface was rough. A solution of one part paraffin wax with two parts paraffin oil might be used. Some authorities recommended driving the material into the concrete by a blow lamp.

A coating preparation devised to provide an oilproofing material for tanks was patented in British specification No. 149365 (Ivinson and Roberts); it comprised 30-65 parts by weight of chloride of zinc, 30-55 parts of oxide of zinc and 2-20 parts of chloride of ammonia. Tests had been made by the National Physical Laboratory upon model reinforced concrete tanks coated in accordance with this process. The thickness of concrete was 3 in. and the internal dimensions gave a cube of 6 in sides. Tests were made up to pressures of 50 lbs. per sq. in. with petrol, petrol and paraffin in equal proportions, linseed oil and turpentine in equal proportions, and with water. In no case was there evidence of permeability.

Well graded sands containing considerable fine graded material were preferable for making impermeable concrete, but if such were not to be had, fine material in the form of hydrated lime, finely ground clay, or an additional quantity of cement would be found of value. Where Portland cement mortar was used as a plaster coat, if sufficient cement were used and the sand contained sufficient fine material (or fine material be added) and the mortar were placed without joints and well trowelled (care being taken not to over-trowel, which might cause crazing), the coating would be effective as an impermeable medium without the use of any waterproofing compound. As a precaution under certain conditions, it was undoubtedly desirable to use bituminous or similar coatings, even on new work, as protection where cracks might occur due to settling of foundation or expansion and contraction caused by temperature changes. The permeability of Portland cement mortars and concretes rapidly decreased with age.

The trend of the evidence appeared to be that if great care was taken in the grading, mixing and placing of the concrete, a voidless concrete could be obtained and that such concrete was as good as, if not better than, that obtained with the special preparations.

He had no doubt that in practice the addition of certain materials to the concrete gave better results than had previously been obtained under the ordinary practical conditions. From the practical point of view, therefore, it had to be decided whether it cost less to exert the meticulous care in grading and supervision than to add special preparations. That would depend to some extent upon the nature of the structure and the strength of the concrete required to resist the forces acting upon it. In reinforced concrete structures was required a concrete of such strength that there must be the amount of cement which, if properly graded and mixed, would give a practically impermeable concrete. In other cases such strength might not be called for, and it might prove cheaper to employ an inert void-filling material than to add more cement.

MANAGEMENT PROBLEMS.

"THE One Best Way" was the title of a lecture delivered by Major Frank Gilbreth at Olympia last week, in which he discussed the relations between employer and employed and his views as to the best method of obtaining greater efficiency, and thereby increased production, from all concerned in industry.

He pointed out that every business organisation must necessarily be divided into two parts—the managing and the performing—but that division should not be looked upon as an inseparable barrier; each department was essential to the other, and in the prosperity of the business as a whole was bound up the prosperity of the capitalist, the management, and the workpeople. In all businesses the proprietors took the greatest care to ensure that the right men were chosen to occupy executive positions, and it was essential that the same care and thought should be devoted to the selection of workpeople. If a man were not in his right place, no matter what that position might be, such good results would not be obtained as if he were selected in accordance with his inclinations, qualifications, interests, and also his hobbies. It was in the interests not only of the business itself, but of the country as a whole, that every position, no matter how high or how low, should be filled by the right man. Such a selection would also be in the interests of all concerned, for no man could ever hope to earn the maximum of which he was capable until he was fitted into the niche for which he was best endowed by his physical and mental abilities to fill with the most satisfaction to himself and to the increase of the total productivity of the country.

The lecturer demonstrated his system of motion study by means of lantern slides made from photographs taken from cinematograph films, and pointed out the amount of time unconsciously wasted by the workers in unnecessary movements. There was, he said, only one best way to perform any operation, and that was the way in which the best results were obtained with the least effort on the part of the worker. As emphasising the necessity for providing the best tools possible, he mentioned that the best tools he had ever seen were in the workshops at San Francisco, and it was at that place that the highest wages were paid. That was partly brought about by the workers themselves, who found that they could earn higher wages with better tools and insisted on having the best. He estimated that in America at least 2s. a day per worker was lost through not providing the best tools, and he believed the waste from the same cause in this country was considerably in excess of that sum.

UNEMPLOYMENT AND INSURANCE.

There can be no question but that the right method of dealing with unemployment is by insurance, and the very short period during which the system has been tried has sufficed to show that it has great possibilities. In the light of experience, indeed, it is to be regretted that the system was not extended during the war when wages were high and unemployment was practically unknown, for it is evident that a fund would have accumulated which would have tided us over the present period of unemployment. The Act of 1912 was an experiment, and applied only to seven trades (building, construction of works, shipbuilding, mechanical engineering, ironfounding, construction of vehicles, and saw-milling). In November last, when the new Act came into force, some four millions of workpeople were under the provisions of the Act of 1911 as extended during the war, and eight millions were embraced by the new Act.

Dr. Macnamara, in introducing the Bill to amend the new Act last week, stated that the Insurance Fund had had a good time during the war, and down to the present, as during the war unemployment was practically unknown, and since the Armistice the obligations of the Fund had been very largely met by out-of-work donations made by the State, the sums so paid having amounted between November, 1918, and November, 1919, for civilians to £22,000,000, and, between November, 1918 and March 31, next, £40,000,000 for ex-Service men. The accumulated balance of the Insurance Fund to-day stands at over £20,000,000.

Insurance provides a palliative for unemployment which is free from the drawbacks attending other forms of relief, and we think the Government has acted wisely in at once extending the benefits which are provided for in the Act of last year to meet the present crisis. Leaving out of consideration the ex-Service men, to whom special provisions apply, the Bill which passed its third reading in the House of Commons last week extends the period during which benefits can be drawn from eight weeks to two periods of sixteen weeks, *i.e.*, sixteen weeks from the passing of the Bill to the end of October and another sixteen weeks between the end of October and the beginning of July, making 26 weeks in the insurance year. The amount of benefit is raised to 20s. for men and 16s. for women, and half those amounts for boys and girls respectively.

The contributions are raised as follows:—

(1) Men: From the employed person to 5d. in place of 4d.; from the employer 6d. in place of 4d.; and from the State 2⅓d. in place of 2d.

(2) Women: 4d. in place of 3d. from the employed; 5d. from the employer in place of 3½d.; and 2½d. from the State in place of 1⅔d.

(3) Boys: 2½d. in place of 2d. from the employed; 3d. in place of 2d. from the employer; and 1⅔d. from the State in place of 1¼d.

(4) Girls: 2d. in place of 1½d. from the employed; 2½d. in place of 2d. from the employer; and 1⅓d. in place of 1d. from the State.

The scheme is based on an average of 9½ per cent. unemployment up to the end of June, 1922. In 1912 the percentage taken was 8.6.

Dr. Macnamara stated that the addition of 5s. for men and 4s. for women from trade unions and friendly societies would remain as under the existing Act, making the benefit for men 25s. and for women 20s.

Although Mr. Clynes moved an amendment proposing benefit of 40s. for the heads of families and 25s. for other than heads of families, it is satisfactory to find that the benefits set out above were arrived at by agreement, the Government consenting to increase the benefit from 18s. in the case of men to 20s., and for women from 15s. to 16s., but this, it is calculated, will exhaust the fund in hand instead of leaving a balance of four or five million pounds.

Although the system of unemployment insurance did not originally find favour with the Labour Party, we think it is being proved to be an admitted success; but it must be remembered that it is but a palliative and does not pretend to touch the causes of the disease. The causes of the disease of unemployment are manifold (the loss of capital during the war, the disorganisation of international trade, the fall in exchanges, the cost of living, &c.), but one of the immediate causes in this country is the high rate of wages. The idea is prevalent that wages can be maintained and standardised at the same level whether there is a demand for labour or not, and whether the work is light or heavy, and that a man, whether employed or unemployed, is entitled to maintain the same standard of comparative comfort. This is not so in other than the so-called "working-classes," for the other classes are suffering in silence from the after-effects of the war, cutting down even necessaries and having to adopt what the working-classes would term a "different standard" of living altogether. In the long run wages must depend upon the work performed, the output, and demand; unearned wages only breed unemployment. Every war has to be paid for, whether it is successful or unsuccessful, and no country after a war can continue living on a pre-war scale. Capital must be built up again, foreign trade restored, and plant accumulated, and during this period of reconstruction strict economy must be observed by every class in the State. No short cut is possible, and prosperity can only be secured by hard work and self-denial. Wages cannot be maintained by Act of Parliament—they must be earned—and until this plain truth is fully realised unemployment will spread, taxation increase, and trade will diminish.

AGREEMENTS IN RESTRAINT OF TRADE.

Some interesting points were raised in the recent case Bowler & Blake *v.* Lovegrove (the *Times*, February 18). The plaintiffs, who were auctioneers and estate agents at Portsmouth (including Southsea) and Gosport, were seeking to enforce an agreement against the defendant, who had been employed as one of their clerks, in which it was provided: "After the termination from any cause of the employment aforesaid the clerk shall not for the term of one year carry on or be interested in carrying on the business of auctioneers and estate agents after such termination directly or indirectly assist as clerk manager or in any other capacity in the carrying on of such business within the Borough of Portsmouth or in the Town of Gosport." It will be observed the clause after the words "estate agents" appears meaningless, but the court held the word "or" must be inserted before the words "directly or indirectly" to make it intelligible, but it would make better sense were it inserted before the word "after."

The defendant had entered the plaintiffs' service in May, 1920, and was employed as outside canvasser and negotiator, his duties being to interview people and obtain buyers and sellers of house property. In September, the defendant, having given notice, left the plaintiffs' employ and set up in business as an estate agent in Southsea. He advertised himself as "Estate Agent, A.A.I.," but he did not take out an auctioneer's licence or do business as an auctioneer. No question appears to have been raised as to Southsea being outside the limits defined in the agreement The court on the clause held that the limit of time and the limit of area applied to the whole of the clause

The most interesting point decided was that the court held that the prohibition in the clause was against carrying on the business of auctioneers *and* estate agents, and that the clause must be read strictly to include both branches, and it was not infringed by the defendant, who only acted as an estate agent. It was argued that the defendant, by placing the initials "A.A.I." after his name on his name-plate, letter paper, and business cards was holding himself out as an auctioneer, but the court negatived this contention, as it was proved that many estate agents were associates of this Institute who never acted as auctioneers.

The above findings really disposed of the case, but the court, in case the above findings should be held wrong on appeal, also dealt with the question of the reasonableness of the clause. On the authority of dicta in two cases, Morris *v.* Saxelby (1916, A.C. 688) and Attwood *v.* Lamont (1920, 3 K.B. 571), the court held that it was now clearly laid down that as between employer and employee the clause would *prima facie* be invalid, and to establish its validity the plaintiffs would have to prove that there existed some special circumstances which rendered it reasonably necessary for the protection of their business.

In this case the court found on the evidence of one of the plaintiffs, which it said was very frankly given, that the clause was inserted with the object of preventing competition, and that it was intended to prevent the defendant from carrying on all the businesses the plaintiffs were engaged in, and not, as decided in the case Morris *v.* Saxelby, because it was feared that the defendant could injure the plaintiffs by any misuse of his acquaintance with their customers or of his knowledge of trade secrets, nor, as was laid down in the case Dewes *v.* Fitch (1920, 2 Ch. 181) because the plaintiffs' trade connection would be unduly invaded by the defendant because of any special opportunities the latter might have acquired for such invasion whilst in the employ. The court held that, although the defendant had come into personal contact with the plaintiffs' customers, in this class of business the defendant in setting up business on his own account would depend on his own skill and industry and not upon making an improper use of the knowledge he had acquired of the plaintiffs' trade connections.

The case seems to go further than previous cases, and it would be a serious matter for auctioneers and estate agents if they could not restrain ex-employees from setting up as rivals in close proximity. It is to be noted that the cases cited contain dicta on which the court acted, but the facts in those cases were not the same. In Morris *v.* Saxelby the covenant was between the purchaser and the vendor of a business or its goodwill, and the House of Lords only decided incidentally that such a covenant as between an employer and employee stood on a different footing, as in this connection of employer and employed a covenant against competition *per se* could not be enforced. In Attwood *v.* Lamont the defendant was a tailoring assistant in a draper's, tailor's, and general outfitter's, and the court held the covenant was wider than necessary for the protection of the plaintiff's business, and that it was not severable. In Dewes *v.* Fitch the covenant was held unreasonable as being for the life of the covenant r.

Of course, where trade secrets are involved there is no difficulty in showing special circumstances rendering protection necessary. An example of this will be found in the case Forster & Sons *v.* Suggett (*The Builder*, December 27, 1918). We think the case under consideration, however, may be taken not as deciding any hard-and-fast rule as to auctioneers and estate agents, but merely to have been decided on the particular evidence before the court. The very frank admission of the plaintiffs that the clause was in fact intended merely to prevent competition was sufficient to bring the case within the dicta delivered in the House of Lords in the case Morris *v.* Saxelby, that as between employer and employed a covenant against competition *per se* could not be enforced.

Sunderland War Memorial.

It has been decided to erect a war memorial at Sunderland, on a site in Mowbray Park, and for this purpose the design submitted by Mr. Ray, Master at the Sunderland Art School, has been approved. It will be in the form of a column surmounted by a symbolical figure.

THE PROVIDENT INSTITUTION OF BUILDERS' FOREMEN AND CLERKS OF WORKS.

Annual Dinner.

MR. F. SHINGLETON, M.V.O. (President), presided over a very large gathering at the Holborn Restaurant, on Thursday last week, on the occasion of the annual dinner of the Provident Institution of Builders' Foremen and Clerks of Works. The total amount paid by the Institution in pensions now amounts to £23,465, of which sum £845 was paid during the past year. The receipts for the year 1920 were £969, and the expenditure £1,059.

In proposing the toast of "The Institution," the PRESIDENT said the Institution was in need of more funds, and there were many more candidates eligible for pensions awaiting election. Considering the position in the trade of foremen, he did not consider the employers subscribed as liberally as they should.

MR. F. J. DEXTER, in responding, said the members of the Institution had increased their subscriptions to about 150 per cent. over the pre-war sum, and it was up to the trade to help those who were helping themselves. The members of the Institution were convinced that their sympathies should be allied to the employers rather than to the operatives.

The toast of "The Architects and Surveyors" was proposed by MR. E. J. BROWN (Director of the London Master Builders' Association), who said the builders were at present experiencing difficulty in coming to an agreement with the architects on the question of the form of contract. The new form of contract issued by the Royal Institute of British Architects corresponded in appearance with the old form, although its contents were totally different and embraced totally different ideas. At present the builders had their own form of contract, the Society of Architects had another, and the R.I.B.A. had another. Why could not the builders and architects get together and try to come to an agreement on the matter? With regard to the Guilds of Builders, the builders of the country were not afraid of competition from that direction provided it was on equal terms. But the Guilds had been given contracts on terms which every legitimate builder in the country would have been delighted to accept; the preference given to the Guilds had got to stop, otherwise there would be serious trouble. He also expressed regret that Mr. J. W. Simpson (President of the R.I.B.A.) had addressed a letter to one of the building trade union leaders in May last year expressing his (Mr. Simpson's) approval of the Guild's prospectus, and stating that the Guild movement had his sympathy.

In responding, MR. E. J. SADGROVE (Past-President, Society of Architects), said the Society had unsuccessfully endeavoured to arrange a conference between the architects and master builders at which a form of contract could be mutually agreed upon. The architects wanted a good, equitable form of contract, and, while whatever was good in the proposed National Code would be accepted, whatever was bad in it would have to come out. With regard to the Guilds of Builders, he thought Mr. Simpson's letter did not express the views of architects generally.

In responding to the toast of "The Builders and Contractors" (proposed by MR. WM. WOODWARD, F.R.I.B.A.), MR. G. M. BURT (President, London Master Builders' Association) said the building industry felt sore that the R.I.B.A. had not yet thought fit to meet them on the question of the form of contract.

MR. E. C. DUNKIN proposed "The Governors, Trustees, and Subscribers," and, in reply, MR. F. J. DOVE said he was convinced that the great mass of the working men of the country were as desirous that the ex-Service men should be given employment as were the master builders, and he appealed to the foremen to give them assistance and help them to learn their trade.

The toast of "The Visitors" was proposed by MR. ALEX. RITCHIE, and responded to by MR. BEN CARTER.

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the building trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Bricklayers' Labourers.	Plasterers' Labourers.
Aberdare	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Accrington	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Altrincham	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Ashton-under-Lyne	2/4	2/4	2/4	2/4	2/4	2/5	2/4	2/0–2/0½	
Barnsley	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Barrow-in-Furness	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Barry	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Bath	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Bedford	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Birkenhead	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0½	
Birmingham	2/4	2/4	2/4	2/4	2/4	2/5	2/4	2/1	
Bishop Auckland	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Blackburn	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Blackpool	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Bolton	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Bournemouth	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Bradford	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Bridgwater	1/10½	1/10½	1/10½	1/10½	1/10½	1/10½	1/10½	1/7½	
Brighton	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Bristol	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Burnley	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Burton-on-Trent	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Bury	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Cambridge	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Cardiff	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Chatham	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Chelmsford	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Cheltenham	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Chester	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Chesterfield	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Colchester	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Coventry	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Crewe	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/10½–1/11	
Darlington	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Derby	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Doncaster	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Dudley	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Durham	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
East Glam. and Mon. Valleys	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Exeter	2/–	2/–	2/–	2/–	2/–	2/–	1/11	1/9	
Folkestone	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Gloucester	2/–	2/–	2/–	2/–	2/–	2/–	1/11	1/9	
Grantham	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Grays	2/4	2/4	2/4	2/4	2/4	2/4½	2/3	2/1	
Grimsby	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Great Yarmouth	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Guildford	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Halifax	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Harrogate	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Hartlepools	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Hastings	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Hereford	2/–	2/–	2/–	2/–	2/–	2/–	1/11	1/9	
Huddersfield	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Hull	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Ipswich	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Lancaster	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Leamington Spa	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Leeds	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Leicester	2/4	2/4	2/4	2/4	2/4	2/4½	2/4	2/1	
Lichfield	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Lincoln	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Liverpool	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0½	
Llanelly	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
London	2/4	2/4	2/4	2/4	—	2/4½	2/3	2/1	
Loughborough	2/4	2/4	2/4	2/4	2/4	2/4½	2/4	2/1	
Luton	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Maidstone	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Manchester	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Mansfield	2/2½	2/2½	2/2½	2/2½	2/2½	2/3	2/2½	1/11½	
Merthyr Tydfil	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Middlesbrough	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Newcastle-on-Tyne	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Newport, Mon.	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Northampton	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Norwich	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Nottingham	2/4	2/4	2/4	2/4	2/4	2/4½	2/4	2/1	
Oakham	2/1	2/1	2/–	2/1	2/1	2/1	2/1	1/10	
Oldham	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Oxford	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Plymouth	2/1	2/1	2/1	2/1	2/1	2/1	2/–	1/10	
Pontypridd	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Portsmouth	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Preston	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Reading	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Rochdale	2/4	2/4	2/4	2/4	2/4	2/5	2/4	2/0–2/0½	
Rochester	1/11	1/11	1/11	1/11	1/11	1/11	1/11	1/8	
Rugby	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
St. Albans	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/8	
St. Helen's	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Scarborough	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Sheffield	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Shrewsbury	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Southampton	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Southend-on-Sea	2/0½	2/0½	2/0½	2/0½	2/0½	2/0½	1/11½	1/9	
Southport	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
South Shields	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Stockport	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Stockton-on-Tees	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Stoke-on-Trent	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	
Stroud	2/–	2/–	2/–	2/–	2/–	2/–	1/11½	1/9	
Sunderland	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Swansea	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Taunton	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Torquay	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Wakefield	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Walsall	2/2½	2/2½	2/2½	2/2½	2/2½	2/3½	2/2½	1/11½	
Warrington	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
West Bromwich	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Wigan	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/0–2/0½	
Windsor	2/–	2/–	2/–	2/–	2/–	2/–	2/–	1/9	
Wolverhampton	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/1	
Worcester	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/4	1/11½	
York	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	2/2½	1/11½	

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this number. Contracts iv; Competitions iv; Public Appointments xcvi; Sales by Auction e. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

MARCH 7.—**Amble.**—HOUSES, &c.—Erection of (*a*) 50 houses, (*b*) roads and sewers, for the U.D.C. Messrs. G. Reavell and W. Arthur Tebbs, architects, Alnwick.

MARCH 7.—**Birkenhead.**—PAINTING.—For external painting of Poor-Law office, for the Board of Guardians. Mr. S. R. Carter, Clerk, Guardians' Offices, Birkenhead.

MARCH 7.—**Cork.**—ALTERATIONS.—Alterations to the library premises, Pembroke-street, for Messrs. R. & H. Hall. Messrs. Chillingworth & Levie, architects, 11, South Mall, Cork.

MARCH 7.—**Edinburgh.**—ALTERATIONS.—For (1) alterations and (2) painting and cleaning at offices, 12, St. Giles-street, for Burgh Assessor's Department. Mr. James A. Williamson, Architect, Public Works Office, City-chambers, Edinburgh.

MARCH 7.—**Glasgow.**—JOINERY WORK.—For joinery works in connection with alterations at Holy Cross R.C. School, Daisy-street, Govanhill, for the T.C. Education Offices (Property Department), 129, Bath-street, Glasgow. Deposit 10s. 6d.

MARCH 7.—**Gourock.**—BUILDING.—Building for the accommodation of pilots at Gourock Pier, for the Caledonian Railway Co., Company's Engineer, Buchanan-street Station, Glasgow. Deposit, £2 2s.

MARCH 7.—**Hoole.**—FIRE STATION.—Erection of fire station, for the U.D.C. Mr. F. Davies, architect, 14, Newgate-street, Chester.

MARCH 7.—**Inverness.**—HOUSES.—Erection of houses (1) between Banavie and Mallaig (including Moidart), 29; (2) Camus-na-Heridh to Tulloch, 5; (3) Valley of the Great Glen to Invergarry, 11; (4) Knoydart, 9 for the local authority of the Lochaber District. Mr. J. G. Falconer, architect, Fort William.

MARCH 7.—**Leeds.**—PAINTING.—Painting and cleaning at the Infectious Diseases Hospital, Seacroft, and the Tuberculosis Sanatorium, Killingbeck, for the T.C. Steward's Office, Seacroft Hospital.

MARCH 7.—**Manchester.**—PAINTING.—For painting and decorating the Branch Art Gallery at Heaton Park, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

MARCH 7.—**Sheffield.**—PAINTING.—For painting at Brightside Baths, for the T.C. Mr. F. E. B. Edwards, City Architect. Town Hall, Sheffield.

MARCH 7.—**Skegness.**—CARTSHED.—Erection of brick and tile cartshed, for the U.D.C. Mr. R. H. Jenkins, Engineer, Skegness. Deposit, £1 1s.

MARCH 7.—**Thurso.**—HOUSES.—Erection of 12 four-room cottages, for the T.C. Mr. J. Ross M'Millan, architect, 105, Crown-street, Aberdeen.

MARCH 7.—**Various Places.**—PAINTING.—For cleaning and repainting station buildings, bridges, &c., at (1) Bathampton, Limpley Stoke, &c.; (2) Bath, Salt-ford, &c.; (3) Yatton, Weston-super-Mare, &c.; (4) Exeter, Teignmouth, &c; (5) Crumlin Viaduct; (6) Newport; (7) Porthcawl, Llangeinor, &c.; (8) Ponty-pool Road, Crumlin, &c.; (9) Cardiff; (10) Newtown Yard, Cardiff; (11) Swansea, Briton Ferry, &c.; (12) Pontardulais, Ammanford, &c.; (13) Whitland, Tenby, &c., for the G.W.R. Co. Office of the Engineer at Bristol Temple Meads for Contracts Nos. 1 to 3, at Taunton for Contract No. 4, at Newport for Contracts Nos. 5 to 10, and at Neath for Contracts Nos. 11 to 13.

MARCH 7.—**Wakefield.**—HOUSES, &c.—(*a*) Construction of 12 in. dia. sewer, &c., at Sharlston; (*b*) erection of 18 houses at Sharlston; (*c*) erection of six "A" south type houses at Kirkhamgate. Messrs. Massie & Holdsworth, architects, Yorkshire Buildings, Wood-street, Wakefield.

MARCH 7.—**Warrington.**—PAINTING.—For painting and decorating inside Thewlis-street schools, for the T.C. Mr. A. M. Ker, Borough Engineer, Warrington.

MARCH 7.—**Warrington.**—HOUSES.—Erection of 93 houses on the Reynolds-street site, for the T.C. Messrs. Wright & Hamlyn, architects, Sankey-street Chambers, Warrington. Deposit £2 2s.

MARCH 7.—**Wigan.**—HOUSES, &c.—Erection of 22 houses, construction of roads, &c., at Shevington, for the R.D.C. Mr. P. Fairclough, surveyor, 18, Victoria-buildings, King-street, Wigan.

MARCH 8.—**Belper.**—HOUSES.—Erection of three pairs of type A and two pairs of type B houses, with the necessary drainage, fencing, &c., at Holloway, near Matlock, for the R.D.C. Mr. John B. Mason, architect, Duffield.

MARCH 8.—**Broadstairs and St. Peters.**—HOUSES.—Erection and completion of 54 houses on land situate at St. Peters. Mr. E. F. Moodey, architect, 109, High-street Broadstairs. Deposit £2 2s.

MARCH 8.—**Gloucester.**—HOUSES.—Erection of seven blocks of semi-detached houses and two blocks of semi-detached bungalows at Barnewood, for the R.D.C. Surveyor, Berkeley House, Berkeley-street, Gloucester.

MARCH 8.—**Leeds.**—REPAIRS.—Repairs to buildings and furniture, for the Education Committee. Architect's Section, Education Department, Calverley-street, Leeds.

MARCH 8.—**Lincoln.**—ADDITIONS.—For additions and improvements to Branston Hall, near Lincoln, to fit it up as a County Sanatorium, and for the erection of an open-air school in connection, for the Lindsey C.C. Messrs. Scorer & Gamble, architects, Bank-street Chambers, Lincoln. Deposit, £2 2s.

MARCH 9.—**Goole.**—HOUSES.—Erection of 26 houses, for the U.D.C. Mr. J. H. Castle, Surveyor, Council Offices, Goole. Deposit, £2.

MARCH 9.—**Hackney.**—EXTENSION.—For building works, being an extension of the electricity power house at Millfields-road. Borough Electrical Engineer, 306, Mare-street, Hackney, E. 8. Deposit, £5 5s.

MARCH 9.—**Lancaster.**—ADDITIONAL BUILDINGS.—Erection of additional buildings at Rufford Hall Sanatorium, Rufford, Lancaster. Director of Contracts, H.M. Office of Works, London, S.W.1. Deposit £1 1s.

MARCH 9.—**Ruislip-Northwood.**—HOUSES.—Erection of 91 houses for the U.D.C. Mr. Edmund R. Abbott, Clerk to the Council, Council Offices, Northwood.

MARCH 9.—**Liverpool.**—PARCELS OFFICE.—Erection of Liverpool New Parcels Office, for the Commissioners of His Majesty's Works. Director of Contracts, H.M. Office of Works, London, S.W.1. Deposit £1 1s.

MARCH 9.—**Middleton.**—HOUSES.—Erection of 64 houses, comprising 16 blocks of four, on Boarshaw (site) South, for the T.C. Borough Engineer, Town Hall, Middleton.

MARCH 9.—**Middleton.**—HOUSES.—Erection of 36 houses on the Boarshaw (North) site, for the T.C. Borough Engineer, Town Hall, Middleton.

MARCH 9.—**Ulverston.**—HOUSES.—Erection of 10 houses, for the R.D.C. Messrs. J. W. Grundy & Son, architects, Central Buildings, Brogden-street, Ulverston.

MARCH 10.—**Anglesey.**—HOUSES.—Erection of houses at Parish of Rhodogeidio (Llanerchymedd), 22; Parish of Llanfechell, 12; Parish of Llanbadrig, 8, for the Anglesey Joint Housing Board. Messrs. T. H. Hughes and Benjamin Evans, Joint Secretaries, 12, High-street.

MARCH 10.—**Biggar.**—HOUSES.—Erection of 12 dwelling houses in blocks of two at Southcrofts, Biggar, for the T.C. Mr. L. A. Morrison, architect, Murrayfield, Biggar.

MARCH 10.—**Cleethorpes.**—HOUSES.—Erection of 54 houses (three types), for the U.D.C. Mr. L. W. Pye, Surveyor, Council Offices, Cleethorpes. Deposit, £2 2s.

MARCH 10. — **Glasgow.**—CONVENIENCE.—Construction of a public convenience in Elder Park, Govan. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

MARCH 11.—**Edinburgh.**—SUB-STATION.—Erection of electricity sub-station, Cowgate, for the T.C. Mr. James A. Williamson, A.R.I.B.A., Public Works Office, City Chambers, Edinburgh.

MARCH 11.—**Ringwood.**—HOUSES.—Erection of 46 houses, for the R.D.C. Mr. E. H. H. Griffith, architect, High-street, Downton, Wilts. Deposit, £2 2s.

MARCH 12.—**Halifax.**—FOUNDATIONS.—Excavating, concreting and brickwork required in laying down the foundations for two cooling towers at the electricity works, for the T.C. Mr. James Lord, Borough Engineer, Crossley-street, Halifax. Deposit, £2 2s.

MARCH 12.—**Hemel Hempstead.**—HOUSES.—Erection of eight cottages in pairs at King's Langley, for the R.D.C. Mr. T. H. Lighbody, architect, 20, Marlowes, Hemel Hempstead. Deposit £1 1s.

MARCH 12.—**Hinderwell.**—HOUSES, &c.—Building 36 houses at Staithes-lane end, Staithes, also for making roads, sewers, &c., for the U.D.C. Messrs. French & Wilkins, architects, Flowergate, Whitby.

*MARCH 12.—**Swadlincote.**—HOUSES.—Erection of 84 houses on three sites either in one contract or alternatively for blocks of 54, 20 and 10, in accordance with plans, &c. Messrs. Baines & Provis, architects, 22, Friar-lane, Leicester. Deposit £2 2s.

MARCH 14.—**Crewe.**—PAINTING.—For painting and decorating of Broad-street Schools, for the T.C. Mr. L. St. G. Wilkinson, Borough Engineer, Municipal Buildings, Crewe. Deposit £1 1s.

MARCH 14.—**Heaton.**—MESS ROOM.—Erecting mess room, &c., at Heaton Engine Sheds, for the North-Eastern Railway Co. Mr. A. Pollard, company's architect, Irving House, Westgate-road, Newcastle-on-Tyne.

MARCH 14.—**Glencoagh.**—CLASSROOM.—Building of classroom to National School, for the Office of Public Works, Glencoagh National School, Mountcharles, Co. Donegal.

MARCH 14.—**Manchester.**—FENCING.—Erection of Chestnut fencing, &c., for allotments at Sparth-road, Newton Heath; Yew Tree-road, Fallowfield; Matthew's-lane, Levenshulme, for the T.C. City Engineer's Office, Town Hall, Manchester. Deposit £1 1s.

*MARCH 14.—**Southend-on-Sea.**—ERECTION AND COMPLETION.—Erection and completion of proposed extension to engine house at the Main Generating Station, Corporation Electricity Works, for the County Borough. Mr. R. H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2 2s.

MARCH 15.—**Brentford.**—HOUSES.—Erection of 70 houses, for the U.D.C. Mr. W. J. Westlake, Surveyor to the Council, Clifden House, Boston-road, Brentford.

*MARCH 15.—**Grantham.**—ALTERATIONS AND ADDITIONS.—Alterations and additions to the Ministry of Pensions Hospital, Harrowby Camp, Grantham. Director of Contracts, H.M.O.W., Storey's Gate, Westminster, S.W. 1. Deposit £1 1s.

MARCH 15.—**Middlesex.**—COTTAGES.—Erection of two pairs of cottages at Jersey-road, Lampton, near Hounslow. County Engineer, Middlesex C.C., Middlesex Guildhall, Westminster, S.W.1. Deposit £2.

MARCH 17.—**Southampton.**—HOUSES.—For building any number of houses up to a maximum by one builder of 100, in pairs of parlour and non-parlour types. Mr. R. R. Linthorne, Town Clerk, Municipal Offices Southampton.

MARCH 17.—**Stockton-on-Tees.**—HOUSES.—Erection of 226 houses at Norton, for the T.C Housing Architect, 90, High-street, Stockton. Deposit, £3 3s.

*MARCH 18.—**Loughborough.**—HOUSES.—Erection of (1) twelve houses on the Elms Grove site, and (2) seven houses on the York-road site, Loughborough. Messrs. Albert E. King & Co., architects and surveyors, 19, Baxter Gate, Loughborough.

MARCH 21.—**Stockton Heath.**—HOUSES.—Erection of 12 houses of various types on the Stockton Heath and Walton Inferior Site, for the R.D.C. of Runcorn. Messrs. Wright & Hamlyn, Sankey-street Chambers, Warrington. Deposit £2 2s.

*MARCH 22. — **Leyton.** — WINDOW CLEANING — Cleaning of windows externally and internally to the whole of the Council schools, for the U.D.C. Mr. John H. Jacques, 2, Fen-court, Fenchurch-street, E.C. 3.

MARCH 22. — **South Kensington.** — EXCAVATIONS, FOUNDATIONS, &c.—Excavations, foundations, &c., for the new Spirit Museum, South Kensington, S.W. Director of Contracts, H.M. Office of Works, Storey's-gate, Westminster, S.W.1. Deposit £1 1s.

MARCH 22.—**Westhampnett.**—HOUSES.—Erection of four houses at East Wittering and six houses at Pagham, for Westhampnett R.D.C. Mr. John Dovaston, A.R.I.B.A., M.C.I., Pallant House, Chichester. Deposit, £1 1s. in respect of each set of drawings, &c.

MARCH 23.—**Chorley.**—PAINTING.—For painting the Town Hall Assembly Room, Refreshment Room, &c., for the T.C. Borough Surveyor's Office, Town Hall, Chorley.

*MARCH 23.—**London, W.C.**—Extension of the Library at the British Museum, London, W.C.1. Director of Contracts, H.M. Office of Works, Storey's Gate, Westminster, S.W.1.

MARCH 24. — **Wandsworth.** — PAINTING.—Internal painting at the St. James' Infirmary, Ouseley-road, Balham, S.W.12, for the Guardians of the Wandsworth Union. Deposit £2.

*APRIL 6.—**Wallingford.**—COTTAGES.—Erection of four brick cottages each at Long Wittenham and Brightwell, Berks, for the R.D.C. Offices of the Council, 7, St. Martin's-street, Wallingford, and at the offices of Messrs. Drower & Brighton, Quantity Surveyors, 28, Victoria-street, Westminster, S.W.1.

*JUNE 30.—**Pulborough.**—COTTAGES.—Erection of 30 cottages in various parishes, for the R.D.C. Mr. Percy Ayling, Clerk to the Council, Council Offices Storrington, Pulborough.

NO DATE.—**Easthampstead, Berks.**—HOUSES.—Erection of eight houses on the site of the old football field, Chavey Down, Winkfield, for the R.D.C. Messrs. Perkins & Brocklehurst, architects, Raymond House, 32, Theobald's-road, Grays Inn, W.C.1. Deposit £2 2s.

NO DATE.—**Leeds.**—BRICKLAYING.—For bricklaying contracts in respect of 22 houses to be erected on the Cragg Hill site, at Horsforth. Messrs. G. H. Shipley and W. Broadbent, joint architects, 12, Park-lane, Leeds.

NO DATE.—**St. Columb.**—HOUSES.—Erection of houses at Cubert (8), St. Breock (8), Colan (4), Crantock (8), Padstow Rural (6), St. Merryn (8), St. Issey (8), St. Wenn (6), for the R.D.C. Messrs. Andrew & Randell, architects, New Inn-chambers, St. Austell.

*NO DATE.—**Wigan.**—WAR MEMORIAL.—Erection of war memorial (granite obelisk) in Mesnes Park, for the County Borough. Borough Engineer, King-street West, Wigan. Deposit £1 1s.

FURNITURE, MATERIALS, etc.

MARCH 7.—**Brentford.**—ROAD MATERIALS.—Supply to the U.D.C. of materials for the Boston-road widening. Mr. W. J. W. Westlake, Surveyor, Clifden House, Boston-road, Brentford.

MARCH 7.—**Bury.**—MATERIALS.—Supply of stores to the Gas Department. Gasworks, Elton, Bury.

MARCH 7.—**Manchester.**—KERBS, &c.—Supply of Haslingden flags, curbs, and setts, o the Paving Committee. Paving, &c., Department, Town Hall, Manchester.

MARCH 7.—**Middleton.**—MATERIALS.—Supply of road materials to the T.C. Mr. J. P. Walmsley, Town Clerk, Town Hall, Middleton.

MARCH 7.—**Midlothian.**—TAR, &c.—Supply of refined coal tar, coal tar pitch, and pitch oil, for the C.C. Road Office, County Buildings, Edinburgh.

MARCH 7.—**Morley.**—MATERIALS.—Supply of road and other materials, for the T.C. Mr. F. Turner, Borough Engineer, Town Hall, Morley.

MARCH 7.—**Whitefield.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. George M. Denton, Surveyor, Council Offices, Whitefield.

MARCH 8.—**Glasgow.**—GRANITE SETTS.—Supply of granite or whinstone paving setts required by the Tramways Department. Mr. Jas. Dalrymple, General Manager, 46, Bath-street, Glasgow.

MARCH 8.—**Littleborough.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. George H. Wild, Surveyor, Council Offices, Littleborough.

MARCH 9.—**Birmingham.**—STORES.—For supply of materials of all kinds to the Gas Department. Mr. A. W. Smith, General Manager, Council House, Birmingham.

MARCH 9.—**Dublin.**—RAILWAY STORES.—Supply of various stores to the Great Southern & Western Railway Co. (Ireland). General Stores Dept., Inchicore, Dublin.

MARCH 9. — **Hollingbourn.**—ROAD MATERIALS.—Supply of road materials, to the R.D.C. Mr. F. Miskin, clerk, 33, Earl street, Maidstone.

MARCH 9.—**Littlehampton.**—MATERIALS.—Supply to the U.D.C. of brooms and shovels, water pipes and fittings. Mr. Arthur Shelley, Clerk, Town Offices, Littlehampton.

MARCH 9.—**Oldham.**—MATERIALS.—Supply of materials to the T.C. Borough Surveyor, Town Hall, Oldham.

MARCH 9.—**Shoreditch.**—MATERIALS, &C.—Supply of (1) broken granite; (2) plumbers' work; (3) smiths' work; (4) drain pipes, junctions, bends, &c. Borough Surveyor, Town Hall, Old-street, E.C.2.

MARCH 10.—**Chatham.**—MATERIALS.—Supply of road and other materials, to the T.C. Borough Surveyor, Town Hall, Chatham.

MARCH 10.—**Hendon.**—MATERIALS.—Supply of materials, &c., and execution of works for the R.D.C. Mr. J. A. Webb, surveyor, Council Offices, Stanmore.

MARCH 10.—**Thakeham.**—ROAD MATERIALS.—Supply of basalt, granite, flints and tar, to the R.D.C. Mr. Wm. Forrester, surveyor, Storrington, Pulborough, Sussex.

MARCH 11.—**Aylesbury.**—MATERIALS.—Supply of materials, for the use of the various departments of the T.C. Mr. Wm. H. Taylor, Borough Engineer, Town Hall, Aylesbury.

MARCH 11.—**Darlington.**—MATERIALS.—Supply of materials for the public services to the T.C. Borough Surveyor, Town Hall, Darlington.

MARCH 12.—**Earby.**—MATERIALS.—Supply to the U.D.C. of limestone, tarred slag, earthenware goods, and iron castings. Mr. Jas. E. Aldersley, Surveyor, Council Offices, Earby.

MARCH 12.—**Newark.**—MATERIALS.—Supply of road materials, for the R.D.C. Mr. R. Oakden, District Surveyor, 27, Winchilsea-avenue, Newark.

MARCH 12.—**Northampton.**—MATERIALS.—Supply of broken granite and slag, to the T.C. Mr. A. Fidler, Borough Engineer, Guildhall, Northampton.

MARCH 12.—**Stafford.**—MATERIALS, &C.—For road materials, cartage, and tools, for the Staffordshire C.C. Mr. J. Moncur, County Surveyor, County Buildings, Stafford.

MARCH 12.—**Sutton Coldfield.**—MATERIALS.—Supply of road and other materials, to the T.C. Mr. W. A. H. Clarry, Borough Engineer, The Council House, Sutton Coldfield.

MARCH 14.—**Blackwell.**—ROAD MATERIAL.—Supply of road material to the R.D.C. Mr. H. Silcock, surveyor, 67, Westgate, Mansfield.

MARCH 14.—**Bucklow.**—MATERIALS.—Supply of granite setts, broken granite, &c., to the R.D.C. Mr. R. C. Cordon, Highway Surveyor, Knutsford.

MARCH 14.—**Durban.**—COAL TAR.—Supply of 400 tons of coal tar or tar substitute, to the Municipality. Messrs. Webster, Steel & Co., 5, East India-avenue, Leadenhall-street, E.C., Agents to the Durban Corporation.

MARCH 15.—**Buxton.**—MATERIALS.—Supply of materials for the various departments of the T.C. Mr. F. Langley, Borough Engineer, Town Hall, Buxton.

MARCH 15.—**Faversham.**—ROAD MATERIALS.—Supply of pit flints, shingle and fine gravel, to the R.D.C. Mr. J. G. Chittenden, District Surveyor, Ashford-road, Faversham.

MARCH 15.—**Gosport.**—MATERIALS.—Supply of road and other materials, to the U.D.C. Surveyor, Town Hall, Gosport.

MARCH 15.—**Rye.**—ROAD MATERIALS.—Supply of materials to the R.D.C. Mr. H. J. Elliott, District Surveyor, Winchelsea, Sussex.

MARCH 17.—**London.**—BOOKCASES.—Supply to Commissioners of H.M. Works, &c., of open bookcases. Controller of Supplies, H.M. Office of Works, &c., King Charles-street, Westminster, London, S.W.1.

MARCH 17.—**London.**—JOINERY SCREENS.—Supply to Commissioners of H.M. Works, &c., of joinery screens. Controller of Supplies, H.M. Office of Works, &c., King Charles-street, Westminster, London, S.W.1.

MARCH 17.—**Repton.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. T. R. Sidgwick, surveyor, Willington, Derby.

MARCH 19.—**Milnrow.**—MATERIALS.—Supply of road and other materials, to the U.D.C. Mr. A. S. Whipp, Surveyor, Council Offices, Milnrow.

ENGINEERING, IRON AND STEEL.

MARCH 7.—**Croydon.**—COOLING TOWERS.—Supply of two natural draught cooling towers, for the T.C. Borough Electrical Engineer, Electricity Works, Factory-lane, Croydon.

MARCH 8.—**Paddington.**—GIRDERS, &C.—Supply of about 84 tons of steel girders and other iron and steel work, to the G.W.R. Co. Engineer, Paddington Station, London.

MARCH 9.—**London.**—SCREWSPIKES.—Supply of 530,000 steel screwspikes with rolled threads for 18 kilos f.f. rails, to the Egyptian Delta Light Railways, Ltd. Offices of the Egyptian Delta Light Railways, 210–216, Gresham House, Old Broad-street, E.C.2. Charge £1 1s.

MARCH 10.—**Manchester.**—PURIFIER HOUSE, &C.—Erection of steel-framed purifier house and foundations, and construction and erection of purifiers, for the Gas Department. Mr. Godfrey W. Kaye, secretary, Gas Department, Town Hall, Manchester. Deposit £3 3s.

MARCH 11.—**Glasgow.**—LIGHTING AND HEATING.—Installation of electric light and new heating systems in a number of schools, for the Education Authority.—Property Department, 129, Bath-street, Glasgow. Deposit, £1 1s.

MARCH 15.—**London.**—RAILWAY PLANT.—Supply of rails, fishplates, nuts, screw spikes, &c., for the Jodhpur Bikaner Railway Co., Ltd. Messrs. Rendel, Palmer & Tritton, engineers, 13, Dartmouth-street, Westminster, S.W.1. Charge £1 1s.

MARCH 16.—**Wallasey.**—GAS PLANT, &C.—(1) The supply, welding up, and testing of about 4 miles of high pressure steel mains, 12 in. to 6 in. diameter; (2) supply of six 6 in. district gas governors, with valves; (3) manufacture and erection of two rotary gas exhausters, with steam engines combined; (4) manufacture and erection of three rotary gas compressors, with steam engines combined; (5) manufacture and erection of roofing over three bays of a new purifier house. Mr. J. H. Crowther, Engineer, Gasworks, Limekiln-lane, Wallasey.

MARCH 24.—**Barnsley.**—FILTERS.—Supply and erection of mechanical filters, for the T.C. Waterworks Engineer, Doncaster-road, Barnsley. Deposit £3 3s.

APRIL 18.—**Montevideo.**—BRIDGE.—Construction of superstructure of bridge over the Santa Lucie River, for the Ministry of Public Works. Enquiry Office, Department of Overseas Trade, 35, Old Queen-street, S.W.

MAY 2.—**South Africa.**—GRAIN ELEVATORS.—Construction of (a) one terminal grain elevator at Cape Town, capacity 30,000 tons of 2,000 lbs.; (b) one terminal grain elevator at Durban, capacity 42,000 tons of 2,000 lbs.; (c) 34 country elevators, ranging in capacity from 1,800 to 5,800 tons of 2,000 lbs. High Commissioner for the Union of South Africa, 32, Victoria-street, London. Deposit £100.

MAY 31.—**Bombay.**—WATER WORKS.—Construction of about 105 miles of steel and reinforced concrete pipe lines (from 72 in. to 57 in. diameter), and contingent works, for the Corporation. Messrs. Taylor & Sons, consulting engineers, 36, Victoria-street, Westminster, London, S.W. Deposit, £2 each specification (8).

JUNE 15.—**Walton-on-Thames.**—PUMPING MACHINERY.—Supply and erection of pumping machinery near Walton-on-Thames, Surrey, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, Offices, Rosebery-avenue, E.C. Deposit, £5.

JUNE 20.—**China.**—BRIDGE.—The Peking-Hankow Line (Chinese Government Railways) invites sealed proposals for designing and building a new steel bridge, about 2,800 metres in length, across the Yellow River (Hoangho). Plans, &c., by telegraph from the following offices: Peking-Hankow Railway, Peking, China; Chinese Legation, London; British Legation, Peking, China. Deposit £6.

ROAD, SANITARY, AND WATER WORKS.

MARCH 7.—**Devon.**—ROAD TARRING.—For the carrying out of main road surface tarring work during season 1921, for the C.C. Mr. Brian S. Miller, Clerk, The Castle, Exeter.

MARCH 10.—**Southwell.**—LAY-OUT.—Lay-out of 19 acres of land in connection with housing scheme at Rufford, for the R.D.C. Messrs. Sands & Walker, Milton Chambers, Milton-street, Nottingham. Deposit £2 2s.

MARCH 11.—**Southwick.**—LAY-OUT.—For laying house drains and footpaths, and erecting fencing, in connection with housing site, for the U.D.C. Mr. G. W. Warr, Surveyor, Town Hall, Southwick, Sussex. Deposit, £1 1s.

MARCH 12.—Grays.—SEWERAGE WORKS.—Construction of about 1,060 yards of concrete tube and cast-iron sewers of 16 in. diameter; roadway and underground screen and pump suction chambers, for the Thurrock, Grays and Tilbury Joint Sewerage Board. Mr. G. Midgley Taylor, M.Inst.C.E., 36, Victoria-street, Westminster, S.W.1. Deposit £5.

MARCH 14.—**Eastwood.**—LAY-OUT.—Making up of three new roads at New Eastwood housing site, for the U.D.C. Mr. A. G. Wheeler, surveyor, Public Offices, Eastwood. Deposit £1 1s.

MARCH 14.—**Hayes.**—TARRING.—For tarring about 40,000 square yards of highways, for the U.D.C. Mr. D. C. Fidler, Surveyor, Council Offices, Hayes, Middlesex.

MARCH 14.—**Southwick.**—STREET WORKS.—For sewering Whiterock-place and Whiterock-street, and making up a portion of Whiterock-place, for the U.D.C. Mr. Geo. W. Warr, Surveyor, Town Hall, Southwick. Deposit, £1 1s.

MARCH 15.—**Broughton Moor.**—DRAINAGE.—For new drainage system and latrines at the Council School, for the Cumberland C.C. Mr. J. Forster, County Architect, The Courts, Carlisle. Deposit £1 1s.

MARCH 15.—**Hartland.**—DRAINAGE.—Construction of drainage scheme at the Parish Church. Mr. F. J. Wilton, Myrtle Cottage, Hartland.

MARCH 15.—**Tottenham.**—PAVING.—Supply and laying of artificial paving flags for one year, for the U.D.C. The Surveyor, Town Hall, Tottenham, N.

MARCH 16.—**Adwick-le-Street.**—ASPHALTING.—For asphalting of playground at Council School, for the West Riding C.C. West Riding Architect, County Hall, Wakefield.

MARCH 18.—**Seaton Delaval.**—SEWERS, &C.—Laying of sewers and the making of roads in connection with the housing schemes, No. 1, Seaton Delaval; No. 2, New Hartley; No. 3, Seaton Sluice, for the U.D.C. Mr. Anthony Dorin, surveyor, Council Chambers, Seaton Delaval.

MARCH 28.—Simla.—WATERWORKS PLANT.—Supplying, erecting and running for one month a new pumping plant, consisting of three units and steel rising mains, &c., with all fittings for the water supply, for the Simla Municipality. Mr. A. F. Henderson, c.e. Messrs. Henry S. King & Co., Cornhill, E.C. Charge £1.

APRIL 5.—**Gosforth.**—ROADS AND SEWERS.—For laying sewers and forming roads, &c., on the housing site at Coxlodge, for the U.D.C. Mr. Geo. Nelson, surveyor, Council Chambers, Gosforth.

Auction Sales, Tenders, etc.

MARCH 8.—**London, S.W.**—Messrs. Frank G. Bowen will sell by order of the Sheriff at 3, Vauxhall Bridge-road, S.W., plant, machinery and stock of a builder and joinery contractor. Auctioneers, 62A, Aldersgate-street, and Hare-court, London, E.C.1.

MARCH 9.—**Norwich.**—Messrs. Hooker & Rogers will sell, at Costessey Hall, Norwich, carved oak panelling, fittings, timber and paving stone, &c., arising from the demolition of the East Wing and Prince's rooms. Auctioneers, 4, High-street, Croydon.

MARCH 9 AND 10.—**Leighterton, nr. Gloucester.**—Messrs. Bruton, Knowles & Co. will sell by direction of the Disposal Board at Leighterton Aerodrome 82, buildings and equipments. Auctioneers, Albion Chambers, King-street, Gloucester.

MARCH 10.—**Canterbury.**—Messrs. King & Ashenden will sell at Spit-lane, Stelling, in a meadow adjoining the hard road, a large quantity (about 26 tons) of well-seasoned sawn oak timber. Auctioneers, 40, St. Margaret's-street, Canterbury.

✱MARCH 10.—**London, W.C.**—Messrs. Davis & Moon will sell electrical engineers' and contractors' stock-in-trade, at 13, High Holborn. Auctioneers, 285, Borough High-street, S.E.1.

✱MARCH 10.—**Surrey.**—Messrs. J. T. Skelding & Co. will sell by direction of Messrs. E. Patton & Co., Ltd., timber and building materials, portable farm boilers. Auctioneers, 48, Gresham-street, London, E.C. 2.

✱MARCH 11.—**Gloucester.**—Messrs. J. Pearce, Pope & Sons will sell, by direction of the Disposal Board, at the National Filling Factory (C.S.D., Depot 251), Quedgeley, modern plant and machinery. 84, Aldate Chambers, Gloucester.

MARCH 11.—**Shirley near Croydon.**—Messrs. Robert W. Fuller, Moon & Fuller will sell, by direction of the Disposal Board, 41 Sectional huts, at Addington Park, Shirley, near Croydon. Auctioneers, 33, High-street, Croydon.

✱MARCH 14.—**Ponders End.**—Messrs. J. T. Skelding & Co. will sell at the Yard, Falcon-road, South-street, Ponders End, important timber and building materials, wire-rolled glass, &c. Auctioneers, 48, Gresham-street, Guildhall, E.C. 2.

MARCH 15.—**Norfolk.**—Messrs. Joseph Hibbard & Sons will sell, by order of the Board of Trade, at Stratton, Strawless, stock of timber of various assortments. Auctioneers, Newington-green, Islington, London, N.16.

MARCH 15.—**Winchester.**—Messrs. Gudgeon & Sons will sell, by direction of the Disposal Board, at Hazeley Down Camp, near Winchester, camp buildings of various types. Auctioneers, The Auction Mart, Winchester.

✱MARCH 16.—**Westminster, S.W. 1.**—Mr. J. Trevor will sell without reserve, at 101, Grosvenor-road, Westminster, S.W. 1, timber in small and large lots. Auctioneers, 32A, George-street, Hanover-square, W. 1.

MARCH 31.—**London, W.**—Messrs. Knight, Frank, & Rutley will let by auction, with immediate possession, Poland-street Workhouse, in the Hanover-square Estate Room, at 2.30 p.m. Auctioneers, 20, Hanover-square, London, W.1.

Competitions.

(*See Competition News, page* 276.)

Public Appointments.

MARCH 7.—**Cheshire.**—Deputy County Architect, Assistant Architectural Draughtsman. Mr. H. Beswick, County Architect, Newgate-street, Chester.

✱MARCH 8.—**Easington.**—Chargeman wanted with plumbing experience to devote his whole time to the laying of water-mains and maintenance of all fittings in connection with public water supplied under the direction of the Surveyor, for the R.D.C. Mr. F. W. Girvin, Surveyor, Council Offices, Easington, co. Durham.

MARCH 8.—**Hackney, E.**—Correspondence and General Clerk required by the Borough Council in the Borough Engineer and Surveyor's Department. Mr. Norman Scorgie, Acting Town Clerk, Town Hall, Hackney, E.8.

MARCH 10.—**London.**—Surveyor required by the Worshipful Company of Ironmongers for their London Estates. Clerk, the Company's Temporary Office, Wax Chandlers' Hall, Gresham-street, E.C.2.

MARCH 15.—**Cumberland.**—Second Grade Male Clerk required by the County Council. Mr. J. Forster, F.R.I.B.A., County Architect, The Courts, Carlisle.

✱NO DATE.—**Berks.**—Clerk of Works required by the County Council, for housing scheme. Director of Agriculture, 11, Abbot's Walk, Reading.

Building Trade Wages.

In a statement issued on Tuesday, the National Federation of Building Trades' Employers refer to statements on the wages question which they describe as misleading. "It is said" they say, "that proposals have been made for the introduction of a sliding scale on the basis of a penny per hour increase for every ten points advance in the cost of living, and a penny per hour decrease for every fall of thirteen points, and that a scheme comes up for ratification next week, but neither statement is in accordance with the facts. The truth is that the National Wages and Conditions Council is sending this week certain documents to the adherent employers' and operatives' federations for ratification or otherwise, including *inter alia* a proposal for varying wages by a sliding scale based on the cost of living. The return is to be made by April 4. If ratification takes place, the National Wages and Conditions Council will proceed to deal with all outstanding notices for alterations of wages and conditions now pending, and any decision it may give cannot take effect until August 1."

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works, at the time of publication, have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C for Parish Council.

BARNSLEY.—The Justices have approved plans for alterations to the "Providence Inn," Park-road, and the "Queen's" Hotel, and have called for further plans for the improvement of the "Castle Inn," Pontefract-road.

BEXHILL.—Plans passed:—Bungalow, submitted by Mr. A. E. Lacey, for Mr. C. Bassett; bungalow, Ninfield-road, by Mr. J. H. Lye, for Mr. A. E. Franklin; residence on Marina (East), by Mr. G. H. Gray, for Miss I. Addison; addition to Clyde Cottage, Clavering-walk, by Messrs. Tubbs & Messer, for Mrs. Morrison; motor garage and store sheds, Cooden-drive, by Mr. J. B. Wall, for Mr. M. Straker; addition to "Little St. John's," Collington-avenue, by Mr. G. H. Gray, for Miss Hamilton; cowsheds and cartsheds, with lofts, at Mount Idol Farm, Ninfield-road, by Mr. G. L. M. Verlyck, for Mr. W. S. Harris. Plans are before the Council for seven cottages, submitted by Mr. G. H. Gray on behalf of Messrs. J. Rogers & Son.

BRAMPTON.—Mr. F. C. Cook, of the Ministry of Health, has held an inquiry into the application of the R.D.C. for sanction to borrow £2,000 for the purchase of property for street improvements.

BRIDGWATER.—A public inquiry has been held by Mr. R. C. Cox (Inspector to the Ministry of Health) into an application by the R.D.C. to borrow £1,495 for the purpose of carrying out water supply extensions to the parishes of Middlezoy (Greylake), Othery, and Westonzoyland.

BRIDLINGTON.—Plans passed:—By Mr. W. G. Buck, alterations to garage, the Promenade, for Mr. Ripley; by Messrs. Walker, Son & Field, garage, Lamplugh-road, for Mr. H. H. Eckles; by Mr. C. F. Johnson, warehouse and garage, Ferndale-terrace, for Mr. J. Champlin; by Messrs. Walker, Son & Field, wooden motor garage, Lamplugh-road, for the Ven. Archdeacon Lambert; by Mr. G. Buck, additions to the Café Esplanade, for the Esplanade Café, Ltd.; by Mr. F. R. Waller, two houses, Cardigan-road, for Mr. F. R. Waller; by Mr. W. Thompson, wooden building, Rate Offices, Prospect-street, for the Waterworks Committee; by Mr. H. P. Hainsworth, wooden building, Elma Villas, for Mr. H. P. Hainsworth; by Mr. J. R. Earnshaw, garage, &c., at Lamplugh-road, for Miss P. Russling; by Mr. F. W. Martindale, four houses, Midway-avenue, for Mr. F. W. Martindale; by Mr. B. B. Stamford, alterations to the men's quarters at the Police Station, Quay-road, for the East Riding County Council; by Mr. W. B. Andrews, alterations to 10 and 11, Prince-street, for T. Linsley & Co., Ltd.

BRIDPORT.—The Housing Commissioner has approved of the housing schemes of the R.D.C. at Chermonte and Chidcock.

BURNLEY.—The R.D.C. has passed plans for rebuilding the bleachworks at Castle Clough, Hapton, for Penny Bros. & Winder, Ltd.

BURRY PORT.—The U.D.C. has received sanction from the M.H. to borrow £800 for the provision of public abattoirs.

CAMBRIDGE.—Plans passed by T.C.: Motor garages, Hills-road, King & Harper, Bridge-street; workshop, 52, Beche-road, F. L. Kirby, Saxon-road; motor house, Brook-side; house, Green End-road, S. Howe, Green End-road.

CARLISLE.—The R.D.C. has passed plans submitted by Mr. Higginson, architect, for a bungalow at Scotby, for Miss Greene.

CHESTERFIELD.—The T.C. has granted permission for the building of the Hasland Working Men's Club and for rebuilding the "Ship" Inn, Lordsmill-street.

COLWYN BAY.—Plans passed by U.D.C.:—House, Ebberston-road, for Mr. J. M. Roberts; bungalow, corner of Mochdre-lane and Hafotty-lane, for Mr. J. O. Williams; additions to house, Ebberston-road, for Miss Helen Wood.

GLASGOW.—At a Dean of Guild Court the principal linings granted included:—Glasgow Corporation (Housing Department)—To erect dwelling-houses and construct roads and sewers at Mosspark. Glasgow Corporation (Electricity Department)—To erect an electricity sub-station at Cumbernauld-road. Glasgow Corporation (Housing Department)—To erect dwelling-houses and form new roads and sewers at Drumoyne, Govan. Glasgow Education Authority—To erect a temporary school at Finlay-drive, Dennistoun. The Tramways Committee is recommending that several tramway extensions be made and that Parliamentary powers be sought for an extension of the existing system from London-road to Mount Vernon.

GOSPORT.—Plans passed by U.D.C.:—Bungalow, Fareham-road, for Mr. Murphy; premises in High-street, for the London Joint City and Midland Bank, Ltd.

GOUROCK.—It was reported at a meeting of the T.C. that the members had had before them plans of the proposed new municipal buildings.

GREENOCK.—Extensive repairs are to be carried out at Gateside Combination Hospital. A sum of about £5,000 is involved in the scheme.

KELVEDON.—Mr. P. M. Crosthwaite, an Inspector for the Ministry of Health, has held an inquiry into a petition to the Ministry to issue a provisional order to empower the Braintree R.D.C. to put in force the Lands Clauses Act, to enable the Council to acquire certain lands at Kelvedon for the purposes of sewage disposal.

LEYTON.—Plan passed by U.D.C.:—Boiler-house and engine-room, Caribonum Works, May-road, for Mr. W. Stewart.

LONDON (STEPNEY).—The B.C. has consented to a new building lease at the premises of T. Hubbock & Son, Broad-street, Ratcliffe, on the application of Mr. E. J. Gosling.

LONGFORD.—Two blocks of buildings in Main-street are to be reconstructed for use as bank branches, one for the Munster and Leinster and another for the National Bank.

LOWESTOFT.—A Ministry of Health inquiry has been held into the application of the T.C. for sanction to borrow £57,000 for sewerage works in the Oulton Broad district, including works in the parish of Oulton, and £2,800 for the construction of bathing chalets on the South Beach, Lowestoft, near the Wellington Gardens, and for the adaptation of the site of the model yacht pond, on the Denes, for the purpose of a swimming pool and tennis courts.

MANSFIELD WOODHOUSE.—A committee has been formed to deal with the question of erecting a war memorial.

NEWRY.—The U.D.C. has decided to spend £3,500 on the construction of new sewers, in order to provide work for the unemployed, provided that a loan can be negotiated on reasonable terms.

RUISLIP-NORTHWOOD.—Plans passed by U.D.C.:—Additions to chapel and house, Ruislip, for Miss Warrender, submitted by Mr. A. S. G. Butler; bungalow, Beech-avenue, Eastcote, for Mr. J. H. Waite, and bungalow, Beech-avenue, Eastcote, for Mr. O. J. Morgan, submitted by Mr. W. L. Carr; bungalow, Mill-lane, Northwood, for Major Preston, submitted by the Universal Housing Co.

SALFORD.—Plans passed: Construction of dwelling-house, Cavendish-road, Broughton; alteration and extension of seating accommodation, New Central Hall, Blackfriars-road, Salford; alterations of premises, 25, Bury-street, Salford; additions to Ladywell Sanatorium, Eccles New-road, Pendleton, and "Torksey," Holden-road, Broughton; construction of garage, 392, Bury New-road, Broughton; rebuilding of motor repair shop, Grecian-street, Broughton; extension of works, Vere-street and Montford-street, Weaste.

SKEGNESS.—Plans passed:—Additions and alterations, 32, High-street, for Mrs. Lawson; motor garage, Grosvenor-road, for the Skegness Motor Service Co.; alterations, Lumley-road, for Marshall Bros.; and chalet theatre, North Parade, for Messrs. Burrows & Pope.

SLOUGH.—It is stated that when the stocks of cars are disposed of the Slough Depot will be developed as an industrial estate on the lines of Trafford Park.

SURBITON.—The U.D.C. has decided to erect 24 more houses on each of its two sites.

TODMORDEN.—Contracts for a war memorial, which is to be erected in the park, have now been let. It is proposed to put the work in hand early in the spring.

WADSLEY BRIDGE.—The War Memorial Committee has decided to erect a Cornish granite cross on the site given by Mr. Vincent Siddall.

FIRES.

BANCHORY.—Mavis Bank, one of the largest villas in the outskirts of Banchory, Deeside, has been destroyed by fire.

BARNSTAPLE.—A fire involving damage of several thousand pounds has occurred at H. Goodenough & Co.'s motor garage and workshop.

DINGWALL.—Dingwall Picture House has been completely gutted by fire. The damage is estimated at £2,000.

GLASGOW.—A fire has occurred at 160 to 164, Bath-street, where premises occupied by E. Hallott & Co., milliners, manufacturers, and designers, were damaged to the extent of £6,000.—A fire has also occurred in the premises of the Ship Chandlery and Sailworks Company at 18, Finnieston-lane, causing £2,000 damage.—Damage estimated at £5,000 has been caused by an outbreak of fire in the premises at 26, Ross-street, Gallowgate, Glasgow, occupied by Messrs. W. & R. Murray, confectioners.

HEREFORD.—Damage to the extent of several thousands of pounds has been done by fire at the timber sawmills of Messrs. R. Groom, Sons & Co., Ltd., at Burcott.

NOTTINGHAM.—A fire has occurred in a factory building at Canal Wharf, Old Lenton, occupied by the Stenwood Chemical Co.

ROTHERHAM.—The Picture House (owned by Councillor P. Gough) has been destroyed by fire.

STAINFORTH.—The premises of Mr. H. Oldfield, grocer, have been destroyed by fire.

Catalogues for Amsterdam.

His Majesty's Consul-General at Amsterdam (Mr. Henry Tom, M.B.E.) reports that a catalogue reference library is being formed at the Consulate, and that he would be glad to receive copies of United Kingdom firms' catalogues for filing and for use in dealing with inquiries as to suppliers of British goods. Catalogues should be addressed direct to His Britannic Majesty's Consul-General, British Consulate, Amsterdam.

PATENTS.

APPLICATIONS PUBLISHED.*

112,449.—W. C. Davis: Continuous reinforcing of concrete blockwork walls of buildings.

134,827.—A. Duffieux: Moulded block for building purposes.

137,053.—A. M. Poulsen: Reinforcements for structural members of ferro-concrete.

139,209.—Bonnett A n é et Fils (Firm of): Apparatus for moulding concrete and the like blocks.

140,431.—Fabriks Aktiebolaget Kronsten: Insulating and building material and method of producing same.

142,111.—Fabriks Aktiebolaget Kronsten: Insulating and building material.

153,402.—S. Templeton: Cranes or excavators.

153,403.—T. Eccles, M. Gill and G. G. Sames: Tiling.

153,417.—K. Yamaguchi: Forms for constructing concrete walls.

153,433.—J. Ward: Manufacture of artificial stone.

153,442.—H. Dunk: Sliding sash windows.

153,491.—C. J. Ross: Manufacture of wall slabs and other products in cement and cement-concrete.

153,497.—C. V. Bossert: Buildings.

153,618.—J. McLean: Bricks and the like for furnace chimneys and other building work.

153,621.—S. J. Meadows: Apparatus for testing the physical properties of materials.

153,625.—H. T. Ripper: Revolving-cupboard fitment.

153,633.—W. E. Clifton and J. S. Ewart: Construction of concrete slab buildings.

153,670.—T. Sutcliffe: Moulds for producing building-blocks.

153,700.—British Thomson-Houston Co. (Compagnie Française Thomson-Houston): Electric hoisting or winding apparatus.

153,744.—Evered & Co. and A. H. Suckling: Sash-lifts.

153,754.—J. C. Beswarick: Block or slab for constructing hollow concrete structures, especially applicable to the walls of buildings.

153,758.—D. McLean: Means of constructing houses.

153,771.—S. R. Parkes: Casement stays.

153,784.—J. Board & Co. and W. S. Akerman: Roofing and other tiles.

153,800.—C. E. Winter: Glazing bars and astragals.

153,811: E. C. R. Marks (R. C. Phillips): Latching device for casement windows, doors, or gates.

153,829.—P. Lauset: Machine for cleaning builders' cement from planks.

156,275.—J. Claughton: Construction and erection of concrete dwellings.

156,319.—D. De Nagy: Building blocks, and framings or structures for use with the same.

156,351.—G. Snell: Construction of door spring and check.

The Industrial Publicity Bureau.

We are informed that the Industrial Publicity Bureau is issuing for the use of employers of labour a series of short talks on industrial topics, which are printed in the form of little folders of convenient size to slip into the men's pay envelopes each week. The first six of these Pay-day Talks have already been issued, and will continue to be published every week, dealing in turn with subjects of interest to the working man in his relations with his employers and industry in general; particularly they aim at enlightening him in simple language on those economic laws, of which he feels the operation but which he does not understand—such as the cause of high prices, unemployment, &c., and the results of strikes, "ca' canny," and so forth. Employers of labour wishing to see specimen, and to receive details of the scheme can do so by writing to Mr. Lewis E. Dickens, one of the founders of the Bureau, at 11, Archer-road, Penarth, South Wales.

* See also our List of Competitions, Contracts etc.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. Since our last issue, iron, lead, etc., have been revised.—Ed.]

BRICKS, &c.

	£ s. d.
Per 1,000 Alongside, in River Thames up to London Bridge.	
Best Stocks	5 1 6
Per 1000, Delivered at London Goods Stations.	£ s. d.
Flettons	3 17 0
Best Stourbridge Fire bricks	12 14 0
GLAZED BRICKS—	
Best White, Ivory, and Salt Glazed Stretchers	29 10 0
Headers	29 0 0
Quoins, Bullnose and 4½in. Flats	36 0 0

Best Blue Pressed Staffordshire ... 12 4 0
Do. Bullnose .. 12 14 0
Blue Wire Cuts 10 6 6
D'ble Str'tch'rs 38 0 0
D'ble Headers 35 0 0
One Side and two Ends .. 39 0 0
Two Sides and one End 40 0 0
Splays and Squints..... 37 10 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Blaze, £5 10s. extra over white.

	s. d.	
Thames Ballast	18 6	per yard, delivered 2 miles radius Paddington.
Pit Sand	24 0 " "	
Thames Sand	25 0 " "	
Best Washed Sand	25 0 " "	
¾ in. Shingle for Ferro-Concrete	24 6 " "	
¼ in. " "	25 6 " "	

Per ton. delivered in London area.

	£ s. d.	£ s. d.
Best Portland Cement	4 7 6 ..	4 13 0
80/6 alongside at Vauxhall in 80-ton lots.		
Ferrocrete per ton extra on above	.. ..	10 0
Best Ground Blue Lias Lime	3 12 6 at rly. depot.	

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks. The sacks are charged at 2s. 6d. each and credited at 2s. each if returned in good condition within three months.

Grey Stone Lime ..... 75s. 0d. per ton delivered.
Stourbridge Fireclay in s'cks 44s. 8d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R.. per ft. cube.....	3 2½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R.. per ft. cube	3 5½
Do. do. delivered on road wagons at Nine Elms Depot	3 6½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L.& S.W.R., South Lambeth Station. G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 11½
Do. do. delivered on road wagons at above stations, per ft. cube..	5 0½
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
YORK STONE, BLUE—*Robin Hood Quality.*	
Delivered at any Goods Station London.	s. d.
Scappled random blocks .....Per Ft. Cube	16 0
6 in. sawn two sides landings to sizes (under 30 ft. super.) .....Per Ft. Super	10 0
6 in. rubbed two sides, ditto ..... "	11 2
3 in. sawn two sides slabs (random sizes) "	4 4
2 in. to 2½ in. sawn one side slabs (random sizes) ..... "	2 8
1½ in. to 2 in. ditto, ditto ..... "	2 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks .....Per Ft. Cube	10 3
6 in. sawn two sides landing to sizes (under 40ft. super.) .....Per Ft. Super	9 6
6 in. rubbed two sides ditto ..... "	11 6
4 in. sawn two sides slabs (random sizes) "	5 6
3 in. ditto, ditto "	4 6
2 in. self-faced random flags ..Per Yard Super	13 6

WOOD.

GOOD BUILDING DEAL.

Inches	£ s.	
4 × 11	64 0	per standard
4 × 9	60 0	"
4 × 8	48 0	"
4 × 7	46 0	"
3 × 8	48 10	"
3 × 7	46 0	"
2½ × 7	45 0	"
3 × 6	43 0	"
3 × 11	65 0	"
2 × 11	65 0	"
3 × 9	55 0	"
2½ × 9	55 0	"
3 × 4½	44 0	"
3 × 4	44 0	"

PLANED BOARDS.

1 × 11	70 0	
1 × 9	60 0	"

PLAIN EDGE FLOORING.

Inches		
¾	37/6	per square
¾	40/-	"
1	48/-	"
1¼	60/-	"
1½	72/-	"

TONGUED AND GROOVED FLOORING.

Inches		
1	48/-	per square
1¼	60/-	"
1½	72/-	"

WOOD (*Continued*).

MATCHINGS (BEST).

Inches		
¾	35/-	per square
¾	39/-	"
1	50/-	"

BATTENS.

Inches	s. d.	
¾ × 2	4 9	per 100 ft.

SAWN LATHS.

Per bundle				0 5	9
Dry Wainscot Oak, per ft. super, as inch	0 3 6	to	0 4	0	
¾ in. do. do.	0 3 0	..	—		
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 2 6	to	0 3	0	
Cuba Mahogany	0 4 0	to	0 4	6	
Teak (Rangoon, Moulmein or Java), per load	75 0 0	to	85 0	0	
American Whitewood planks, per ft. cube	0 18 0	to	1 4	0	
Best Scotch Glue, per cwt.	10 0 0	..	—		
Liquid Glue, per cwt.	5 8 0	..	6 15	0	

SLATES.

1st quality slates from Bangor or Portmadoc in truck load delivered London area. Per 1,000 of 1,200.

		£ s. d.
Best Blue Bangor Slates,	24 by 12	56 10 0
" " "	22 by 12	46 0 0
First quality " "	22 by 11	42 10 0
" " "	20 by 12	42 0 0
Best Blue Portmadoc	20 by 10	36 10 0
" "	18 by 10	29 10 0
First quality "	18 by 9	24 5 0
" "	16 by 10	22 15 0
" "	16 by 8	18 0 0

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	7 15 0
Ditto hand-made ditto	8 10 0
Ornamental ditto	7 7 6
Hip and valley tiles (per dozen)	0 15 0

METALS.

	£ s. d.
JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	
R. S. Joists, cut and fitted	28 0 0
Plain Compound Girders	30 0 0
" Stanchions	32 0 0
In Roof Work	36 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £15 net value delivered direct from works. 5 per cent. less above gross discounts, carriage forward if sent from London stocks.)

	Sizes up to and including ¾ in. Tubes.	Sizes up to and including 2in. Tubes.	Fittings.	Sizes 2½ in. to 6 in. Tubes.	Fittings.
Gas	+ 7½	+ 5	— 5	— 2½	— 17½
Water	+17½	+15	Net	+ 6½	— 15
Steam	+28½	+26½	+ 5	+ 16½	— 12½
Gal. Gas	+32½	+30	+ 5	+ 22½	— 7½
" Water	+45	+42½	+ 10	+ 33½	— 5
" Steam	+57½	+55	+ 15	+ 45	— 2½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6 fts.	6 10	4 10	5 9½
2½ in. " "	7 10½	5 4	7 3
3 in. " "	9 8½	5 9½	8 8½
3½ in. " "	10 9	7 3	10 2
4 in. " "	11 9½	8 2½	11 7½

RAIN-WATER PIPES, &c.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts. plain	5 9	3 0	4 2
2½ in. " "	6 4	3 7	5 0
3 in. " "	7 6	4 6	6 8
3½ in. " "	9 1	5 3	7 9
4 in. " "	10 0	6 6	9 6

L.C.C. DRAIN PIPES,—9 ft. lengths. London Prices per yd.: 4 in., 14/-. .. 5 in., 17/9. .. 6 in., 21/5.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	29 10 0	to	30 10 0
Staffordshire Crown Bars — good merchant quality	30 0 0	..	31 0 0
Staffordshire "Marked Bars"	32 10 0	..	34 10 0
Mild Steel Bars	26 0 0	..	28 0 0
Steel Bars. Ferro-Concrete quality, basis price	26 0 0	..	28 0 0
Hoop Iron, basis price	33 0 0	..	35 0 0
" " Galvanised	48 0 0	..	50 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	32 0 0	..	34 0 0
" " " 24 g.	33 0 0	..	35 0 0
" " " 26 g.	35 0 0	..	36 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6ft. by 2ft. to 3ft. to 20 g.	40 0 0	..	41 0 0
Ordinary sizes, 6ft. by 2ft. to 3ft. to 22 g. and 24 g.	41 0 0	..	43 0 0
Ordinary size, 6ft. by 2ft. to 3ft. to 26 g.	43 0 0	..	45 0 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9ft. 20 g.	32 0 0	..	33 0 0

METALS (*Continued*).

	Per ton in London. £ s. d.		£ s. d.
Ordinary sizes, 6ft. to 9ft. 22 g. and 24 g.	33 0 0	..	34 0 0
Ordinary sizes, 6ft. to 9ft. 26 g.	35 0 0	..	37 0 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	40 0 0	..	41 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	41 0 0	..	42 0 0
Best Soft Steel Sheets, 26 g.	42 0 0	..	43 0 0
Cut Nails, 3in. to 6in.	35 10 0	..	36 10 0
(under 3in. usual trade extras.)			

LEAD, &c.

	Delivered in London. £ s. d.		£ s. d.
LEAD Sheet, English, 4 lb. and up	32 0 0	..	—
Pipe in coils	32 10 0	..	—
Soil Pipe	35 0 0	..	—
Compo pipe	36 0 0	..	—

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	13 0 0	..	—
Do., ex country, carriage forward..... per ton	14 0 0	—	—
COPPER—			
Strong Sheet ....per lb.	0 2 3	—	—
Thin " .... "	0 2 4	..	—
Copper nails .... "	0 2 3	..	—
Copper wire .... "	0 2 4	—	—
TIN—English Ingots "	0 2 0	..	—
SOLDER—Plumbers' "	0 1 1	..	—
Tinmen's..... "	0 1 4	..	—
Blowpipe ..... "	0 1 6	..	—

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	4½d.	32 oz. fourths	10½d.
" thirds	5d.	" thirds	1/-
21 " fourths	6½d.	Fluted, Obscured and	
" thirds	7½d.	Enamelled Sheet.	
26 " fourths .. .	8d.	15 oz.	7d
" thirds	9½d.	21 "	9d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
¼ Rolled plate	5½d.
⅜ Rough rolled	6½d.
½ Rough rolled	7½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	7½d.
Ditto, tinted	9½d.
Rolled Sheet	6½d.
White Rolled Cathedral	6½d.
Tinted do.	7½d.

Cast Plate is ½d. extra on the price of rough rolled.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil	in pipes..... per gallon	0 3 5
" " "	in barrels .... "	0 3 6
" " "	in drums .... "	0 3 7
Boiled " "	in barrels .... "	0 3 11
" " "	in drums .... "	0 4 1
Turpentine	in barrels ..... "	0 5 9
"	in drums (10 gall.) .... "	0 6 0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		58 10 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park." "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots	.....per ton delivered	84 0 0
Red Lead, Dry (packages extra) ..	per ton	43 0 0
Best Linseed Oil Putty	per cwt.	0 19 0
Filocol	per cwt.	0 18 0
Size. X D Quality	ffkn.	0 5 9

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 15 0
Fine ditto	ditto	0 17 2
Fine Copal	ditto	1 1 6
Pale Copal	ditto	1 2 6
Pale Copal Carriage	ditto	1 4 6
Best ditto	ditto	1 14 6
Floor Varnish	Inside	0 19 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 6
Pale ditto	ditto	1 2 6
Best ditto	ditto	1 14 6
Best Japan Gold Size		0 12 6
Best Black Japan		0 18 0
Oak and Mahogany Stain (water)		0 17 6
Brunswick Black		0 11 6
Berlin Black		0 16 6
Knotting (patent)		1 16 0
French and Brush Polish		1 8 0
Liquid Driers in Terebine		0 13 6
Cuirass Black Enamel		0 7 0

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	22	0
Add if in clay	" "	2	0
Add for every additional depth of 6 ft.	" "	1	6
Planking and strutting to trenches	per foot super	0	7½
Do. to sides of excavation, including shoring	" "	1	6

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	55	0
Add if in underpinning in short lengths	" "	10	0
Add if in floors 6 in. thick	" "	4	0
Add if in beams	" "	5	0
Add if aggregate 1 : 2 : 4	" "	15	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	4	6

BRICKLAYER.

		£	s	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	50	15	0
Add if in stocks	"	12	10	0
Add if in Staffordshire blues	"	34	10	0
Add if in Portland cement and sand	"	4	15	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0 1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0 3½

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	1 0
Axed in stocks	" "	0	2 0
Rubbed and gauged jointed in putty camber or segmental	" "	0	7 0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1 8
Setting ordinary register grates and stoves	each	1	5 0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	6	15 0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	9	0
Three-quarter-inch vertical damp course	" "	14	3
One inch on flats in two thicknesses	" "	12	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	6

MASON.

		s.	d.
York stone templates fixed	per foot cube	22	0
York stone sills fixed	" "	35	0
Bath stone and all labour fixed	" "	16	9
Portland stone fixed	" "	26	0

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	98	0
Do. 20 in. × 10 in. Do. Do.	"	115	0
Do. 24 in. × 12 in. Do. Do.	"	117	6

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	9	0
Do. joists	" "	10	0
Do. roofs, floors and partitions	" "	11	3
Do. trusses	" "	13	6

		¾"	1"	1¼"	1½"
Deal rough close boarding	per sq.	60/-	81/-	100/-	108/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	68	0
Do. to beams	per ft. sup.	1	10
Centres for arches	"	2	4
Gutter boards and beams	"	1	9

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		82/-	104/-	120/-
Do. tongued and grooved	"		88/-	110/-	127/-
Do. matchings	"	74/-	89/-		
Moulded skirting, including backings and grounds	per ft. sup.	2/4	2/8	3/2	3/8

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	2	0
Two Do. Do. Do.	" "	2	6
Add for fitting and fixing	" "	0	6
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights ; average size	" "	5	6

DOORS.

		1¼"	1¾"	2"
Two-panel square framed	per ft. sup.	2/8	2/11	3/1
Four-panel Do.	"	3/-	3/4	3/7
Two-panel moulded both sides	"	3/4	3/7	3/10
Four-panel Do. Do.	"	3/8	3/11	4/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	22	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	2/3	2/5	2/9
Deal shelves and bearers	"	2/-	2/2	2/3
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	3/4	4/-	4/8	—	—
Deal strings wrot in both sides and framed "	4/6	4/9	—	—	—

		s.	d.
Housings for steps and risers	each	1	0
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail ; average 3 in. × 3 in.	" "	6	3
Add if ramped	" "	12	6
Add if wreathed	" "	25	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	9d.	Rim locks	2/6
Sash fasteners	1/-	Mortice locks	5/6
Casement fasteners	1/6	Patent spring hinges and letting in to floor and making good	20/-
Casement stays	1/3		
Cupboard locks	1/6		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	32	0
Plain compound girders	"	36	0
Do. stanchions	"	39	0
In roof work	"	43	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	2/-	2/6	3/9	4/3
Ogee Do. Do.	"	2/6	3/3	4/-	5/-
Rain-water pipes with ears	"	2/11	3/9		
Extra for shoes and bends	each	4/7	6/3		
Do. stopped ends	"	2/-	2/6	3/9	4/3
Do. nozzles for inlets	"	2/3	2/9	4/-	4/6

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	58	0
Do. Do. in flats	"	53	0
Extra labour and solder in coated cesspools	each	7	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	2	1
Copper nailing	" "	0	8

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/-	1/8	1/11	3/5	4/3	
Do. service	"	1/7	2/1	2/6	4/-		
Do. soil	"						6/10
Bends in lead pipe	each					3/7	9/-
Soldered stop ends	"	1/4	1/10	2/3	3/2	3/10	
Red lead joints	"	1/-	1/2	1/5	2/1	2/8	5/5
Wiped soldered joints	"	3/2	3/10	4/6	5/5	7/2	10/10
Lead traps and cleaning screws	"				16/2	21/7	
Bib cocks and joints	"	7/6	11/3	18/-	48/-		
Stop cocks and joints	"	18/-	20/-	30/-	75/-		

PLASTERER.

		s.	d
Render, float and set in lime and hair	per yard sup.	3	4
Do. Do. Sirapite	" "	3	9
Do. Do. Keen's	" "	5	0
Add sawn lathing	" "	2	0
Add metal lathing	" "	3	6
Portland cement screed	" "	2	11
Do. plain face	" "	4	9
Mouldings in plaster	per 1 girth	0	3
One-and-a-half granolithic pavings	per yard sup.	6	11

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	1	6
26 oz. Do.	" "	1	9
Obscured sheet	" "	1	11
⅛ in. rolled plate	" "	1	1½
¼ in. rough rolled or cast plate	" "	1	2½
¼ in. wired cast plate	" "	1	9

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	1	6
Knotting and priming	" "	1	0
Plain painting 1 coat	" "	1	6
Do. 2 coats	" "	2	4
Do. 3 coats	" "	3	2
Do. 4 coats	" "	4	0
Graining	" "	3	0
Varnishing twice	" "	2	6
Sizing	" "	0	4
Flatting	" "	0	9
Enamel	" "	2	0
Wax polishing	per foot sup.	0	11
French polishing	" "	1	9
Preparing for and hanging paper	per piece	2/- to 5/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd. Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

BUILDINGS (ALDRIDGE), LTD. (173,129). Registered February 14. Little Aston-road, Aldridge, Stafford. Builders and contractors. Nominal capital £4,000.

BEDFORDSHIRE LIME WORKS, LTD. (172,751). Registered January 24. 84, Ebury-street, Westminster, S.W. Cement and lime &c. Nominal capital £3,000.

BLOXAM & SCUFFELLS, LTD. (172,902). Registered February 1. 70A, Basinghall-street, E.C.3. Steel workers, builders, steel and ferro-concrete constructors. Nominal capital £2,500.

BRITISH GREYWOOD CO., LTD. (173,227). Registered February 18. Importers and exporters of timber and builders' materials. Nominal capital £100.

BRITISH MODEL COTTAGE CO., LTD. (172,996). 81, Bridge-street, Worksop, Nottingham. Registered February 5. Builders and contractors. Nominal capital £10,000.

BUILDERS' SUPPLY CO. (LIVERPOOL), LTD. (173,043). Registered February 9. 34 and 35, Central-buildings, North John-street, Liverpool. Builders' merchants. Nominal capital £5,000.

ENGLISH ESTATES ASSOCIATION, LTD. (172,756). Registered January 24. To engage in estate business and garden city schemes. Nominal capital £5,000.

JOHN GREGORY BRINCLIFFE QUARRIES, LTD. (172,759). Registered January 24. Quarry masters and stone merchants. Nominal capital £5,000.

MERSEY LIME AND CEMENT WORKS, LTD. (172,762). Registered January 24. 68, Victoria-street, Liverpool. Lime and cement manufacturers. Nominal capital £5,000.

NORFOLK AND SUFFOLK BRICK CO., LTD. (172,728). Registered January 21. Victoria Brickworks, London-road, Beccles. Nominal capital £85,000.

SOUTH OF ENGLAND CONCRETE MOULDING CO., LTD. (172,766). Registered January 24. Manufacturers of cement slabs. Nominal capital £8,500.

THE FOREST (WALSALL) BRICK CO., LTD. (172,725). Registered January 21. Forest Brick Works, Bloxwich-road, Walsall. Nominal capital £15,000.

WEST OF ENGLAND PORTLAND CEMENT AND LIME CO., LTD. (172,792). Registered January 25. East Quay, Bridgwater, Somerset. Manufacturers of cement and cement paving. Nominal capital £30,000.

UNITED STONE FIRMS, LTD. (172,791). Registered January 25. 2, Bristol Chambers, Nicholas-street, Bristol. Quarry owners and masonry contractors. Nominal capital £100,000.

TRUMAN STEVENS, LTD. (172,768). Registered January 24. 49, South Molton-street, W.1. Builders, contractors, decorators and furnishers. Nominal capital £20,000.

HYDROLOID, LTD. (173,053). Registered February 9. Manufacturers of oil and water resisting papers and boards. Nominal capital £20,000.

MAY CONSTRUCTION CO., LTD. (173,057). Registered February 9. 38, Grosvenor-gardens, Westminster, S.W.1. Builders, decorators and contractors. Nominal capital £7,500.

GEORGE ROBINSON & SON (ROTHERHAM), LTD. (173,032). Registered February 8. North Greaves Brick Works, North Greaves-road, Rotherham. Brick manufacturers. Nominal capital £2,000.

W. H. BENTLEY & CO., LTD. (173,114). Registered February 11. 87, Wellington-road North, Stockport. Painters, decorators and plumbers. Nominal capital £5,000.

FREDERICK THOMPSON, LTD. (173,118). Registered February 12. Slaters and slate merchants. Nominal capital £3,000.

CHARLES BRAMALL, LTD. (173,093). Registered February 11. Silica fire-brick manufacturers. Nominal capital £25,000.

PETTITS, LTD. (173,109). Registered February 11. Staughton House, Post-street, Godmanchester, Hunts. Builders and contractors. Nominal capital £1,000.

MIDDLESEX TIMBER CO., LTD. (173,020). Registered February 7. Nominal capital £2,000.

WALTER WEST, LTD. (173,004). Registered February 5. Monk Bridge, Monkgate, York. Joiners. Nominal capital £5,000.

WEBSTER & SON, LTD. (172,994). Registered February 4. Builders and decorators. Nominal capital £20,000.

ECCLESGILL PATENT SLATING CO., LTD. (172,984). 14, Richmond-terrace, Blackburn. Registered February 4. Nominal capital £5,000.

J. W. WARD & SON, LTD. (172,964). Registered February 3. Bourne End Mills, Boxmoor, Herts. Timber merchants. Nominal capital £15,000.

MOORCROFT & LANE, LTD. (172,968). Registered February 3. 96, Minstead-road, Erdington, Birmingham. Builders and contractors. Nominal capital £1,000.

GRIFFIN BROTHERS (HUGGLESCOTE), LTD. (172,882). Registered January 31. Builders and contractors. Nominal capital £1,000.

H. W. FILLINGHAM & CO., LTD. (172,883). Registered January 31. Mill-road, Wellingborough. Builders and contractors. Nominal capital £3,000.

STRONGHOLD CEMENT BLOCK CONSTRUCTION & MACHINE CO., LTD. (172,941). 34-35, Norfolk-street, Strand, W.C.2. Registered February 2. To acquire interests in patents as to any invention in relation to improved methods for the erection of portable concrete buildings, and manufacturers of cement blocks, &c. Nominal capital £10,000.

G.W.E. EXPERIMENTALS, LTD. (173,231). Registered February 18. To acquire any invention or process in relation to the treatment and manufacture of timber, wood or other builders' materials. Nominal capital, £100.

METALLIC PLASTERING AND RENOVATIONS, LTD. (173,236). 43, London-wall, E.C. Registered February 18. Workers in metal, cement and other plasters. Nominal capital, £1,000.

LLOYD'S COMPOSITION CO., LTD. (173,254). Registered February 19. Wright's Buildings, Dean-street, South Shields. Paint and varnish manufacturers. Nominal capital, £2,000.

R. MIDDLETON & CO., LTD. (173,076). Registered February 10. Builders and contractors. Nominal capital, £2,000.

JOHN RIGG & SON, LTD. (173,156). Registered February 15. Joiners, builders and contractors. Nominal capital, £6,000.

MANELITE PATENT CONCRETE MACHINERY CO., LTD. (173,235). Registered February 18. To acquire the Letters Patent No. 119,206 of 1918 for an invention for "Improvements in machinery employed in the manufacture of concrete and the like wall blocks." Nominal capital, £10,000.

TRADE NEWS.

With reference to the note on "Unbreakable Glass" in our issue for February 11, the Triplex Safety Glass Co., Ltd., of 1, Albemarle-street, Piccadilly, W., write to draw attention to "Triplex" safety glass, which they state is absolutely unsplinterable and cannot fly in splinters when shattered by a blow; the extra thick quality of "Triplex" safety glass is claimed to be bullet-proof. "Triplex," they state, is also burglar-proof, as it cannot be cut with a diamond, and is, therefore, used for panels in jewellers' windows and show-cases. It is also used a good deal for fanlights and skylights. "Triplex" is not wired, and is as transparent as ordinary glass. It consists of two layers of glass with a layer of xylonite (or transparent celluloid) in the centre."

A catalogue describing their hot-water boilers has been issued by Messrs. Lumbys, Ltd., of Greetland Boiler Works, Halifax. A large number of domestic hot-water boilers of various types are illustrated, and the catalogue should be of considerable interest to those concerned with housing schemes.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him *not later than first post on Wednesday.*

*** Denotes *accepted*. † Denotes *provisionally accepted*.**
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BEDWAS AND MACHEN.—For the erection of 122 houses at Trethomas and 76 houses at Machen, for the U.D.C. :—

*Rogers & Davies, Ltd., Cardiff	£953	per house
Alban Richards & Co.	956	,,
Walter Jones & Co., Westminster	984	,,
Sir Robert McAlpine & Sons, Westminster	1,053	,,

BRIDLINGTON.—For alterations and additions to glass dome at the Spa, for the T.C. :—

*W. G. Padgett, Bridlington	£1,324

BURGHEAD.—For three blocks of houses, for the Burghead T.C. Mr. R. B. Pratt, architect, Elgin.

Mason Work.—			
*Miller Bros., Hopeman	£2,351	8	8
Carpenter.—			
*J. Walker, Burghead	658	9	0
*D. Ralph, Burghead	874	10	0
Slater.—			
N. Masson, Hopeman	292	15	0
Plumber.—			
J. Gordon, Burghead	672	7	3
Plasterer.—			
John Ross, Elgin	442	8	0
Painter.—			
Kintrea & Son, Elgin	177	10	0

CROYDON.—For the erection of a bungalow at Addiscombe. Mr. F. W. Rees, M.S.A., architect, 44, Park-lane, Croydon.

*Bridge & Co., Croydon	£2,521
†Kimber & Sons, Croydon	2,525
H. P. Hawkes, Croydon	2,570
Everitt & Sons, Ltd., Croydon	2,630
†C. A. Sedgewick, Thornton Heath	2,695
C. H. Gibson, Croydon	2,700
H. D. Ebbutt, Croydon	2,800
C. A. Head, Croydon	2,930
Mullen & Lumsden, Ltd., Norwood	2,989
E. H. Smith, Croydon	3,590
R. Mansell, Croydon	3,741
Grace & Marsh, Croydon	4,074

*Recommended for acceptance.
†Amended tenders.

EAST COWES.—For the erection of 20 houses (14 parlour type and 6 non-parlour type) on the Beatrice-avenue site, for the U.D.C. Mr. R. Jolliffe, P.A.S.I., architect, Shooters Hill, Cowes. Quantities by the architect.

*W. H. Brading & Son, East Cowes, 2 pairs Class "B," £5,622.
*Herbert Dalton, Wootton, 2 pairs Class "B," £3,799 19s. 8d.
*T. Westbrook & Son, Cowes, 2 pairs Class "B," £3,800.
*E. Sibbick & Sons, East Cowes, 3 pairs Class "A," £5,100.

EDENBRIDGE.—For alterations and additions to Coulden's Farm, Limpsfield. Mr. F. W. Rees, M.S.A., architect, 44, Park-lane, Croydon.

*A. E. Simmons, Marlpit Hill	£300

HACKNEY.—For alterations at 397 and 399, Mare-street, Hackney. Mr. Chas. H. Isaacs, Lic.R.I.B.A. architect and surveyor, 26, Ludgate-hill, E.C.4 :—

‡Franks & Simons	£2,012
The Antill Construction Co.	2,330
G. E. Everitt & Sons, Ltd.	2,601
S. Haskins & Sons	2,770
J. Elliman & Co.	2,780

HENDON.—For sewer extension, Colin Deep-lane, for Hendon U.D.C. Mr. A. O. Knight, A.M.I.C.E., engineer and surveyor :—

*Roads & Public Works, Ltd., Westminster	£489	13	6
F. & A. Bayntum, S.E.	497	0	0
C. W. Killingback, East Finchley	506	0	0
A. S. Smith, Luton	525	5	0
C. Carter, Golders Green	561	13	0
Wm. Balaam, Edgware	577	5	0
H. Farrow, Golders Green	617	8	6

HORSHAM.—For erection of eight cottages, for the U.D.C. :—

*Hoad & Taylor	£910 each.

KINGUSSIE.—For the erection of six houses, for the T.C. :—

*James S. Macpherson, Kingussie (*Mason*)	£3,132
*Donald Fraser, Kingussie (*Joiner*)	2,072
*Donald D. Smith, Grantown (*Plumber*)	639
*Taylor & Son, Inverness (*Slater*)	249
*R. & L. Macpherson, Kingussie (*Plasterer*)	538
*William Dunbar, Kingussie (*Painter*)	154
*Lobban, Jun., Inverness (*Glazier*)	39

LEYTON.—For supply of lime, to the U.D.C. :—

*J. H. Turner & Lisney, Leytonstone—
Ground grey lime, 76s. 6d. per ton: and
Lump grey lime, 74s. per ton.

MITFORD.—For repairs to five cottages at Whinburgh, for the R.D.C. :—

*Taylor & Son	£148 15

MORLEY.—For the erection of a woollen mill, for Mr. S. C. Johnson. Mr. T. A. Buttery, architect, Queen-street, Morley :—

*J. Clegg & Sons, Morley (*Mason, joiner and chimney*)	£21,773 7
*A. Fawcett, Morley (*Plumber*)	1,000 0
*John Dobson, Hunslet (*Plasterer*)	745 0
*John Kellett, Morley (*Slater*)	694 2

NEW ELTHAM.—For the erection of a bungalow at Halfway-street. Mr. F. W. Rees, M.S.A., architect, 44, Park-lane, Croydon.

*Douglas Halse & Co., Woolwich	£1,590
Thos. Knight, Sidcup	1,690
Kirk & Randall, London	1,750
Wm. Pollock, Mottingham	1,800
Wm. F. Blay, Ltd., Dartford	1,995
Thomas & Edge, Woolwich	2,989

NEWTON ABBOT.—For the construction of roads and sewers in connection with Milber housing scheme, for the U.D.C. Mr. Josiah C. Beare, A.R.I.B.A., architect, 42, Devon-square, Newton Abbot. Quantities by architect :—

‡W. H. Smith, Bristol	£9,591 0 0
R. E. Narracott, Torquay	10,892 6 7
A. J. Steer, Plymouth	11,170 0 0
Geo. Pollard & Co., Ltd., Taunton	11,263 18 0
Fothergill Bros., Ltd., Exeter	13,242 9 0
D. Stewart & Co., Exeter	13,998 19 5
Norman Buckley, Weymouth	14,553 15 2
Architect's Estimate	10,452 18 2

NORTHAMPTON.—For the erection of 118 houses on the Harlestone-road site, for the T.C. Borough Engineer, Guildhall, Northampton :—

Brick—
*Henry Martin, Ltd., Northampton £1,700 per pair

Concrete—
*Wm. Higgins, Northampton 1,670 ,,

PORTRUSH.—For erection of generating station at Dunluce-street, Portrush, for the U.D.C. Mr. A. J. Clarke, architect, Portrush :—

Generating station—
†Cochrane & Elliott, Portrush £1,652 11

Mains, generating plant, battery, switch board, &c.—
†Curran Bros., Belfast 13,597 15

PORTSMOUTH.—For painting and renovating certain portions of the Guardians' Offices, for the T.C. Mr. A. E. Cogswell, M.S.A., architect, Prudential Buildings, Portsmouth :—

*Thomas Stride, Portsmouth £120 10

SALFORD.—For erection of mortuary at Pendleton Town Hall, for the T.C. :—

*G. Roylance, Broughton £2,336

SOUTHWICK-ON-WEAR.—For the erection of 8 houses in Burntland-avenue and 12 in Ridley-street, for the U.D.C. Mr. Walter B. Thomas, Architect to the Council. Quantities by the Architect.

Joseph Carter, Sunderland, £19,200, or £960 per house.

WEYMOUTH.—Cleaning, colouring, painting, varnishing and repairs, &c., to boundary fence, pavilion, grand stand, sheds, &c., at the recreation ground, for the Weymouth Football Club. Mr. George H. Whitaker, A.M.I.C.E., Borough Surveyor's Office, Weymouth :—

*Jesty & Baker	£198 12 6
R. A. Ayles, & Son	220 15 0
H. Baker	272 10 0
A. J. Bilke	275 0 0
Jenkins, Hitt & Grant	212 10 0
Strong & Williams, Ltd.	341 3 0
J. T. Wills	327 0 0

WINDSOR.—For the erection of 32 houses in connection with housing scheme, for the Windsor T.C. Messrs. Edgington & Spink, F.R.I.B.A., architects, 52, High-street, Windsor :—

Tarrant, Ltd., Byfleet	£28,700
Norris & Co., Sunningdale	31,165
Charman & Sons, Ascot	32,111
Groom, Sons & Co., Ealing	33,500
A. J. Eldridge, Watford	33,898

(Under consideration.)

Chatham Master Builders' Association.

The annual dinner of the Chatham Master Builders' Association was held at Chatham on February 15. Alderman C. E. Skinner presided, over a gathering which included the Mayor of Chatham (Alderman H. F. Whyman), the Mayor of Gillingham (Councillor J. J. Knight), Councillor A. E. Porter, J.P. (President of the Southern Counties Federation of Building Trades' Employers), Mr. G. A. Hotter (Secretary to the Federation), Messrs. S. C. Skinner, J. L. Redfern, W. F. Wallis (of Maidstone), and others.

"The Association" was proposed by Mr. W. F. Wallis, who said in two years the Government had completed only 30,000 houses, whereas in pre-war days the building trade—unfettered by control—had produced a yearly average of from 90,000 to 100,000 houses. The trade had a right to complain of the Government's favourable treatment of the Building Guilds in the matter of contracts. He believed, however, that the next few months would bring changes regarding control.

Responding to the toast of "The Southern Counties Federation," proposed by Alderman Skinner, the President said the trade could not prosper until the men realised that the cost of production must be reduced.

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